CLOSING THE DECADE: ARIZONA HEALTH STATUS AND VITAL STATISTICS, 1980-1989

ARIZONA DEPARTMENT OF HEALTH SERVICES
Office of Planning and Health Status Monitoring

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Closing The Decade: Arizona Health Status and Vital Statistics, 1980-1989

by
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Arizona Department of Health Services
Office of Planning and Health Status Monitoring

Dedicated to the Residents of Arizona:

"Peace, adequate food and income, decent housing,
safe water, sanitation and a satisfying role in society
- all essential prerequisites for health."

World Health Organization:
Health for all by the Year 2000

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INTRODUCTION

This publication by the Arizona Department of Health Services is the 1989 update on health status and vital statistics information on Arizona residents. As the seventh such annual report, its purpose is to provide readers with a comprehensive review of available population-level data. Closing the Decade: Arizona Health Status and Vital Statistics, 1980-1989 was expanded to include an examination of decade-long trends.

The decade of the 1980's was a period of significant change with respect to the organization, delivery and financing of public, as well as private, health services. As Arizona's population increased by nearly one million residents, state and local agencies experienced new challenges to the public's health. For example, AIDS cases and deaths exploded from zero in 1980 to become the fifth leading cause of death among white non-Hispanic Arizonans 20 to 44 years old by 1989. The chronic mentally ill, children in poverty and ethnic minorities increased in numbers and emerged as particularly vulnerable populations with serious unmet needs. The Arizona Health Care Cost Containment System (AHCCCS) was implemented to serve Arizona's most indigent residents and its membership has since grown to 300,000 people. A major portion of the privately insured population became members of health plans, as employers sought relief from rapidly increasing health care expenditures. Efforts to limit public and private costs for health care proliferated. Simultaneously, a significant sized "notch group" population emerged whose members lacked access to care because they were not poor enough to qualify for AHCCCS and they could not afford to purchase private health insurance. These and other events may well have impacted the health status trends during the 1980's described in this report.

The report is organized into two major parts. The first (Part I: Health Status) is concerned with health status and the second (Part II: Vital Statistics) is devoted to vital statistics. To aid readers the tables presenting the data for Parts I and II are listed in the beginning of the report. The narrative portions of Part I only describe and do not overly interpret or attempt to determine causality for the temporal changes in health status.

Part I contains information about health status divided into five sections describing and summarizing health trends from 1980 to 1989. The first section deals with natality, i.e., fertility and birth rates, the general health of newborns as indexed by birthweight and prematurity, and some demographic and prenatal care characteristics of the women giving birth. The new birth certificate introduced in 1989 broadened the array of natality data to include such factors as use of alcohol and/or tobacco by mother during pregnancy and payee, e.g. AHCCCS and private health insurance, for the birth.

The second or total mortality section compares the age-adjusted profile of leading causes of death between Arizona and United States residents. Gender and county differences in total and cause-specific age-adjusted mortality rates also are examined for Arizona. Premature mortality indicators are contrasted among ethnic groups.

The third section addresses age-specific mortality. The five leading causes of death are discussed for infants, children (1-14 years), adolescents (15-19 years), young adults (20-44 years), middle-aged adults (45-64 years) and the elderly (65 or more years). For each age group, cause-specific mortality is compared between urban (i.e., Maricopa and Pima counties) and rural (all other counties) regions and between genders. Urban and rural regions are compared in gender-specific total mortality and younger vs. older elderly total and cause-specific mortality.

Morbidity, levels of disease and disability in the population, is the topic of the fourth section. The discussion is limited to data on diseases and/or disabilities reported for the entire population of the state because of legal requirements. The incidence of non-sexually transmitted diseases, sexually transmitted diseases (STDs) and Human Immunodeficiency Virus (HIV) infection/Acquired Immune Deficiency Syndrome (AIDS) are examined by county. Gender and age differences in the incidence of STDs and

HIV/AIDS are described. Mortality from infectious diseases during the decade also is discussed.

Health status concludes with the special or fifth section in which the 1989 status of Arizonans is compared to the national health objectives for the Year 1990 developed by the U.S. Public Health Service. This is one way to summarize the health status experience for Arizonans as the decade was closing. Our progress in improving the health status of Arizona residents from the beginning to the end of the decade was limited, with only a minority of the measurable objectives achieved. We thus have an even further distance to travel to improve health status by the Year 2000, which is clearly seen in the second comparison. In the second comparison, the 1989 health status of Arizona was contrasted with the measurable Year 2000 objectives for the United States.

Part II of the report contains vital statistics information with no accompanying narrative. Tables in six sections give data on 1) population composition; 2) births; 3) maternal, perinatal and infant mortality; 4) deaths and crude mortality rates; 5) marriages and divorces; and 6) pregnancies and abortions. Any vital statistics used for the health status narratives are found in Part I.

DATA SOURCES, LIMITATIONS AND DEFINITIONS

SOURCES OF DATA

Information on births, deaths and fetal deaths is compiled from the original documents filed in the Arizona Department of Health Services', Office of Vital Records, and from transcripts of original certificates filed in other states but affecting Arizona residents. (Copies of certificates for births, deaths and fetal deaths occurring to Arizona residents outside the United States are not sent to Arizona). Information on abortions performed on Arizona women is compiled from reports sent to the Arizona Department of Health Services by facilities within but not outside the state. Pregnancies are the sum of live births, spontaneous terminations of pregnancy (fetal deaths or stillbirths) and induced terminations of pregnancy (abortions). Arizona has no central registry for marriage or divorce records. Statistics are limited to counts of marriages and divorces reported monthly by the Clerk of the Superior Court of each county in which the marriage or divorce occurred. These reports contain no personal or demographic data on the people marrying or divorcing.

POPULATION

Population data, used to calculate rates, are from the Population Statistics Unit in the Arizona Department of Economic Security and the U.S. Census Bureau.

RELIABILITY OF RATES

Rate - is a measure of the frequency of some event in relation to a unit of population during a specified time period such as a year; events in the numerator of the year occur to individuals in the denominator. Rates express the likelihood (or risk) of the event in the specified population during a particular time and are generally expressed as units of population in the denominator (per 1,000, per 100,000, and so forth).
Many rates shown in this report are based on a small population, a small number of events, or both. Rates based on small numbers are unreliable and thus should be used with caution. Rates for many counties also vary considerably from year to year due to small populations and few events. In addition, no adjustments for differences in the distribution of age or other demographic variables have been made to the rates given in the Vital Statistics portion (Part II) of this report. Therefore, caution must be exercised when forming conclusions on the basis of these crude or non-adjusted rates.

TERMS RELATED TO REPRODUCTIVE HEALTH[1]

Total Births - Sum of all live births to women of all ages during a calendar year.

Live Birth or Birth - The complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy which, after such expulsion or extraction, breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.

[1] These definitions conform to those approved by the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, the American Medical Association, the Association for Vital Records and Health Statistics, the Centers for Disease Control, the National Center for Health Statistics and the federal Office of Maternal and Child Health. See: "Standard Terminology for Reporting Reproductive Health in the United States," Public Health Reports, September-October 1988, Vol. 103, No. 5.

Gestational Age - The number of completed weeks that have elapsed between the first day of the last normal menstrual period (not the presumed time of conception) and the date of delivery, irrespective of whether the gestation results in a live birth or a fetal death.

Birth Weight - The weight of a neonate determined immediately after delivery or as soon thereafter as possible. It should be expressed to the nearest gram (g).

Low Birth-Weight[2] - Any neonate of gestational age whose weight at birth is 2,500 g or less.

Preterm - Any neonate whose birth occurs through the end of the last day of the 37th week (259th day), following onset of the last menstrual period.

Term - Any neonate whose birth occurs from the beginning of the first day (260th day) of the 38th week, through the end of the last day of the 42nd week (294th day), following onset of the last menstrual period.

Post Term - Any neonate whose birth occurs from the beginning of the first day (295th day) of the 43rd week following onset of the last menstrual period.

Birth Rate (or Crude Birth Rate) - Number of live births to women of all ages during a calendar year per 1,000 population.

Age-Specific Birth Rate - Number of live births to women in specific age group during a calendar year per 1,000 female population in that same age group.

Low-Weight Birth Rate - Number of live births weighing less than 2,500 grams (less than 5 lbs., 8 ozs.) per 1,000 births.

General Fertility Rate - Total number of live births to women of all ages during a calendar year per 1,000 population of women 15-44 years old (the childbearing years).

Total Fertility Rate - The sum of age-specific birth rates of women at each age group 10-14 through 45-49. Since 5-year age groups are used, the sum is multiplied by 5.

Pregnancies - The sum of all live births, fetal deaths and abortions during a calendar year.

Pregnancy Rate - Number of live births, fetal deaths and abortions to women of all ages, during a calendar year per 1,000 population of women 15-44 years old.

Age-Specific Pregnancy Rate - Number of live births, fetal deaths and abortions to women in specific age group during a calendar year per 1,000 female population in that same age group.

Natural Increase - The excess of births over deaths.

Natural Increase Rate - The excess of births over deaths per 1,000 population.

2 Since 1979, the nationwide data are published for infants weighing less than 2,500 grams.

Abortion (Induced Termination of Pregnancy) - The purposeful interruption of an intrauterine pregnancy with the intention other than to produce a liveborn infant, and which does not result in a live birth. This definition excludes management of prolonged retention of products of conception following fetal death.

Abortion Rate - Number of reported abortions to females of all ages during a calendar year per 1,000 females of childbearing age (15-44 years).

Abortion Ratio - Number of abortions reported during a period per 1,000 live births occurring during the same period.

Fetal Death - Death prior to the complete expulsion or extraction from its mother of a product of conception that has reached at least 20 weeks of gestation. The death is indicated by the fact that after such expulsion or extraction the fetus does not breathe or show any evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. If the gestation period is unknown or uncertain, a fetal death certificate is filed if the fetus weighs 500 grams or more.

Neonatal Death - Death of a liveborn neonate before the neonate becomes 28 days old (up to and including 27 days, 23 hours, 59 minutes from the moment of birth).

Postneonatal Mortality - Any death of a liveborn neonate at least 28 days of age but under one year of age.

Infant Mortality - Any death at any time from birth up to, but not including, one year of age (364 days, 23 hours, 59 minutes from the moment of birth).

Maternal Death - The death of a woman from any cause related to or aggravated by pregnancy or its management (regardless of duration or site of pregnancy), but not from accidental or incidental causes.

Maternal Mortality Rate - Number of deaths attributed to maternal conditions per 100,000 live births.

Fetal Death Rate (I) - Number of fetal deaths at 20 or more weeks of gestation per 1,000 live births and fetal deaths at 20 or more weeks of gestation.

Fetal Death Rate (II) - Number of fetal deaths of 500 grams or more per 1,000 live births and fetal deaths of 500 grams or more.[3]

Fetal Death Ratio (I) - Number of fetal deaths at 20 or more weeks of gestation per 1,000 live births.

Fetal Death Ratio (II) - Number of fetal deaths of 500 grams or more per 1,000 live births.

Perinatal Mortality Ratio (I) - Number of infant deaths of less than 7 days and fetal deaths with a stated or presumed period of gestation of 28 weeks or more per 1,000 live births.

[3] The National Center for Health Statistics recommended that "statistical tabulations for comparisons of perinatal mortality rates within the United States exclude fetal deaths of less than 500 g." Public Health Reports, September-October 1988, Vol. 103, No. 5:470.

Perinatal Mortality Ratio (II) - Number of infant deaths of less than 28 days and fetal deaths with a stated or presumed period of gestation of 20 weeks or more per 1,000 live births.

Perinatal Mortality Ratio (III) - Number of infant deaths of less than 7 days and fetal deaths with a stated or presumed gestation of 20 weeks or more.

Infant Mortality Rate - Number of infant deaths (neonatal + postneonatal) per 1,000 live births.

Neonatal Mortality Rate - Number of neonatal deaths per 1,000 live births.

Postneonatal Mortality Rate - Number of postneonatal deaths per 1,000 live births.

TERMS RELATED TO MORTALITY

Underlying Cause of Death - That condition giving rise to the chain of events leading to death. All causes of death are coded in accordance with the International Classification of Diseases, Ninth Revision adapted for the use in the United States (ICD-9).

Crude Death Rate - Number of deaths during a calendar year per 100,000 population.

Cause-Specific Death Rate - Number of deaths from a specific cause during a calendar year per 100,000 population.

Age-Specific Death Rate - Number of deaths in a specific age group during a calendar year per 100,000 population in that age group.

Age-Adjusted Death Rate - Total mortality and cause-specific death rates are age-adjusted using the direct method by multiplying the mortality rate for each age group within a population grouping by the population of that age group within a standard population. The standard population used was the population of the United States in 1940, the same standard population used by the National Center for Health Statistics. The sum of these results for each of these age groups for a given population is the age-adjusted rate. The age-adjusted rate is expressed as a rate per 100,000 population.

OTHER TERMS

Occurrence data - Data compiled by the place where the event occurred, regardless of the person's place of residence.

Residence data - Data compiled by the person's usual place of residence without regard to the geographical place where the event occurred.

Marriage Rate - Number of recorded marriages per 1,000 population.

Dissolution of Marriage Rate - Number of recorded divorces and annulments per 1,000 population.

Ethnicity - The Arizona birth and death certificates record Hispanic origin for all races which permits differentiation of persons classified as "White", "Black", "Native American" or "Asian" into those who simultaneously are or are not of Hispanic origin.

Starting in 1978, Yaqui Indians were no longer classified as White but Native American. The Native American figures include those living both on and off the reservation. Information on a specific tribe is not reported.

Ethnicity of mother, father or descendant is as stated on the certificate. Ethnicity of infant is determined from ethnicity of the parent(s) using classification procedures established by the National Center for Health Statistics.

CHILD'S RACE DETERMINATION TABLE

MOTHER'S RACE

FATHER'S RACE	1	2	3	4	5	6	7	8	0
1	1	2	3	4	5	6	7	8	0
2	2	2	2	2	2	6	2	2	2
3	3	3	3	3	3	6	3	3	3
4	4	4	4	4	4	6	4	4	4
5	5	5	5	5	5	6	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	6	7	7	7
8	8	8	8	8	8	6	8	8	8
9	1	2	3	4	5	6	7	8	0
0	0	0	0	0	0	6	0	0	0

1 = WHITE
2 = BLACK
3 = INDIAN
4 = CHINESE
5 = JAPANESE
6 = HAWAIIAN
7 = OTHER RACES (OTHER NON-WHITE)
8 = FILIPINO

CLASSIFICATION OF CAUSE OF DEATH

The cause of death used in this report is the underlying cause classified according to the International Statistical Classification of Diseases, Injuries, and Causes of Death. Listed below are categories, International Classification of Disease (ICD) codes, and examples of specific diseases for selected causes of mortality discussed in this report. The numbers are the codes from the ICD classification (Ninth Revision, 1975) which covers that cause of death.

Cause of Death Category	ICD Code(s)	Examples
Infectious and parasitic diseases	001-041, 045-139* 042- 044*	Tuberculosis, septicemia, viral hepatitis, coccidioidomycosis, human immunodeficiency virus (HIV) infection
Malignant neoplasms	140-208	Lung cancer, leukemia, breast cancer, colon cancer
Diabetes mellitus	250	Diabetes with coma, diabetes with ophthalmic manifestations, diabetes with renal manifestation
Alcoholism	291, 303 571.0-571.3	Alcoholic psychoses, alcohol dependence syndrome, cirrhosis of liver
Diseases of heart	390-398, 402 404-429	Myocardial infarction, hypertensive heart disease, cardiomyopathy, cardiac dysrhythmias
Cerebrovascular diseases (stroke)	430-438	Intracerebral hemorrhage, occlusion of cerebral arteries
Atherosclerosis	440	Atherosclerosis of aorta, atherosclerosis of renal artery
Other diseases of the arteries	441-448	Aortic aneurysm, arterial embolism and thrombosis, polyarteritis nodosa, diseases of capillaries
Pneumonia and influenza	480-487	Viral pneumonia, bronchopneumonia pneumococcal pneumonia, influenza
Chronic obstructive pulmonary disease (COPD)	490-496	Bronchitis, emphysema, asthma, bronchiectasis, allergic alveolitis
Congenital anomalies	740-759	Heart defects, anencephalus, anomalies of respiratory system, anomalies of central nervous system
Certain conditions originating in perinatal period	760-779	Maternal hypertensive disorders, slow fetal growth and fetal malnutrition, birth trauma, disorders relating to short gestation and low birthweight
Symptoms and ill-defined conditions	780-799	General symptoms, nonspecific abnormal findings, ill-defined and unknown causes of mortality,
	798.0	sudden infant death syndrome
Unintentional injuries from accidents	800-949	Poisoning, falls, motor vehicle accidents, fatalities due to natural and environmental factors
Motor vehicle	810-825	
Drowning	830,832,910,984	
Suicide	950-959	
Homicide	960-969	

* Codes introduced by the National Center for Health Statistics in January 1987.

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PART I: HEALTH STATUS

NATALITY

A new standard birth certificate was introduced in the United States in 1989. The new certificate not only revised the format for recording some prior data but also added data elements not previously reported such as smoking and alcohol use during pregnancy and payee for the birth.[a] This section first deals with birth information that was reported annually during the decade for a comprehensive survey of births. The section then deals with the birth information reported in new format or newly reported in 1989.

Birth and Fertility Rates During the Decade

The number of babies born in Arizona increased 34 percent from 50,049 in 1980 to 67,128 in 1989. However, the growth of the population was even larger so Arizona's birth rate was slightly lower in 1989 than in 1980, although it exceeded the U.S. birth rate at both the start and end of the decade (Table 1-1).

Only Maricopa, Mohave and Yuma counties had higher birth rates in 1989 than in 1980, with the 1989 rates of the latter two counties the highest of the decade (Table 1-1). The annual birth rate of Maricopa county exceeded the statewide rate since 1985.

Greenlee county had the largest decline in birth rate, with its 1989 rate less than one-half of its 1980 rate. Birth rates declined at least 10 percent from 1980 to 1989 for Graham, Gila, Apache, Coconino, Yavapai and Navajo counties.

Eight percent of women of childbearing age (15-44 years) gave birth in 1980 compared to 7.9 percent in 1989 (Table 1-2). The 1989 total fertility rate of Arizona women exceeded the generation replacement rate of 2,110 by 8 percent, the highest exceedance of the decade. Except for girls under 15 years of age, all age-specific birth rates were higher in 1989 than in 1980. Moreover, the 1989 birth rates of 15-19, 20-24, 30-34 and 40-44 year old females were the highest of the decade. In addition, based on the latest available national data, all age-specific birth rates for Arizona women were greater than the respective birth rates of their national peers.

Characteristics of Newborns and Women Giving Birth During the Decade

The Statewide Profile

As seen in Table 1-3, boys consistently accounted for a slightly higher proportion of newborns in each year than did girls (51 and 49 percent respectively). Prematurity, i.e., gestational age less than 38 weeks, characterized 12.6 percent of newborns in 1989 compared to 11.6 percent in 1980, an increase of 9 percent. Babies also were 3 percent more likely to weigh 2,500 grams or less or to be of low birthweight (LBW) in 1989 than in 1980. Very low birthweight (VLBW), i.e., 1500 or less grams, also characterized more newborns in 1989 than in 1980. LBW, and particularly VLBW, places newborns at risk for poorer medical and developmental outcomes. A greater proportion of and 1,190 more newborns were at risk because of disorders related to prematurity, LBW and/or VLBW when the decade ended than when the decade started.

Maternal age. Women older than 29 years accounted for 41 percent more births in 1989 than in 1980 (Table 1-3). Slightly more than one in four mothers in 1989 were at

[a] The format to record complications of pregnancy and delivery, medical risks during pregnancy and congenital anomalies was revised from an open-ended structure where the birth attendant had to write in any applicable response to a listing of responses that the birth attendant could simply check if applicable. The latter format tends to produce more frequent and more accurate data because it requires less effort, does not depend on a writer's legibility, and the responses are standardized.

least 30 years old compared to less than one in five in 1980. Simultaneously, the percent of births to teenagers (females below 20 years) fell from nearly 17 in 1980 to 14 in 1989.

The proportions of LBW births (Table 1-4) and of all births to mothers older than 29 years were nearly equal. In other words, the increase in this maternal characteristic was not related to the increase in LBW babies, or this maternal characteristic was not a risk factor for LBW. In contrast, teenage motherhood was still a risk factor, accounting for a greater percent of LBW births than of all births in 1989.

Marital status. Of all the maternal characteristics measured, marital status showed the largest change during the decade. Single mothers were 64 percent more prevalent in 1989 than in 1980. Almost 31 percent of women giving birth in 1989 were unmarried in 1989 compared to less than 19 percent in 1980. In absolute numbers, that increase translates into 11,249 more births to unwed mothers when the decade ended than when it started.

Single motherhood was represented among a larger share of LBW births than all births in 1989 (40 and 31 percent respectively) as in 1980. The increase in unwed motherhood from 1980 to 1989 may have contributed to the birth of 496 more LBW babies in 1989.[b]

Ethnicity. White non-Hispanic mothers accounted for a smaller share of both all births and LBW births in 1989 than in 1980. Hispanic and Black women each accounted for a larger share of both types of births. However, for Hispanic women, the increase in their share of LBW births was very small and lower than their share of all births. In contrast, Black women's increase in LBW births was twice as great as their increase in all births. The percent of births to Native American women was quite stable and Native American mothers accounted for a lower percent of LBW births in 1989 than in 1980.

Prenatal care. Prenatal care less frequently began in the first trimester of pregnancy for women giving birth in 1989 than in 1980. Less than two-thirds of mothers received early prenatal care at the decade's end, the lowest percent of the decade. At the same time, the percent of women with no prenatal care rose to the decade's highest level in 1989. The 3.6 percent of mothers with no prenatal care in 1989 accounted for 7.6 percent of the LBW babies. The increase from 1980 to 1989 in the proportion of women giving birth with no prenatal care may have contributed to the birth of 115 more LBW babies in 1989.

In terms of number of prenatal visits, from 1980 to 1989 both the percent of mothers with 1-4 prenatal visits and the percent of mothers with 13 or more prenatal visits increased. However, women with the least amount of visits accounted for a smaller share of LBW births, while women with the greatest amount of visits had a larger share of LBW births in 1989 than in 1980. Women giving birth in 1989 were 9.2 times more likely to have 9 or more prenatal visits than to have 1-4 prenatal visits (68.0 and 7.4 percent respectively). Women with 9 or more prenatal visits during pregnancy accounted for a minority of LBW births in 1980 but a majority of LBW births in 1989.

Medical risks/complications and caesarean section. Increasing trends in these two characteristics suggest that women giving birth were less healthy in 1989 than in 1980. In 1989 compared to 1980, 38 percent more mothers were noted to have medical risks during pregnancy and/or complications of labor and delivery and 47 percent more were

[b] Projected hypothetical reductions in LBW in this section are not additive across different factors because most factors are highly related. These hypothetical projections partially indicate the relative strength of different factors and assume constancy of all other factors.

delivered by caesarean section. In 1980, about one-third of women giving birth had complications, illnesses or risks noted; by 1989 these conditions were reported to apply to almost one-half. Nearly one in five mothers delivered by caesarean section in 1989 compared to one in eight in 1980.

These two characteristics were more highly represented among LBW than all births. Over two-thirds of LBW babies were born to mothers with medical risks during pregnancy and/or complications of labor and delivery. Three out of ten LBW babies were delivered by caesarean section. The increase in the proportion of women with medical risks/complications from 1980 to 1989 may have contributed to the birth of 505 more LBW babies in 1989. Similarly, the temporal increase in caesarean section rates may have contributed to the birth of 419 more LBW babies.

Regional Comparisons in Trends During the Decade

Trends in proportions of births to teenagers, women 30 or more years old, single women, and ethnic minority women were identical for female residents of urban (Maricopa and Pima counties) and rural (all other counties) regions (Tables 1-5 and 1-6). Women from the two regions giving birth showed similar increases from 1980 to 1989 in the proportion noted with medical risks and/or complications and the proportion who were delivered by caesarean section. The decline in the percent of mothers who received early prenatal care also was nearly identical for women in the two regions.

Women in the two regions differed in their temporal trends in the proportion who received 1-4 prenatal visits during pregnancy and the attendant at birth. The proportion of rural mothers with 1-4 prenatal visits decreased 11 percent from 1980 to 1989, while the same proportion for urban mothers increased 41 percent. However, in 1989 as in 1980, rural compared to urban mothers were more likely to receive the lowest amount of prenatal care and less likely to receive the greatest amount of prenatal care.

Licensed midwives or certified nurse midwives were 75 percent more likely to attend the delivery of rural women in 1989 than in 1980. Urban women used midwives at the same rate over time and this rate was lower than the rate of use for rural women. The use of midwives was 2.4 times more common among rural than urban mothers in 1989, a situation probably stemming partially from the shortage of physicians with obstetrical practices in many rural regions.

The relative standing between women in the two regions on other maternal characteristics also was identical in 1980 and 1989. Rural relative to urban mothers were more likely to be teenagers; be unmarried; have less than 9 years of school; enter prenatal care in the third trimester or have no care; have medical risks or complications; not deliver by caesarean section; deliver not in a hospital; have a singleton birth; and have a prior live birth.

As in 1980, the LBW rate for rural babies was higher than for urban babies in 1989 (6.7 and 6.3 percent respectively). LBW rates increased from 1980 to 1989 in both metropolitan counties and in 8 of the 13 rural counties (Table 1-7). The 1989 LBW rate for rural counties combined was the highest of the decade. The decade ended especially poorly for newborns of female residents of Navajo and Yavapai counties, with the 1989 LBW rate the decade's highest.

In 1989, the majority of urban but the minority of rural LBW infants were born to mothers with 9 or more prenatal visits (Tables 1-8 and 1-9). Ethnic minorities and late prenatal care, i.e., after the first trimester, both accounted for a majority of rural LBW newborns but a minority of urban LBW newborns. Rural compared to urban LBW infants included a smaller proportion of both VLBW infants (13.7 and 16.8 percent respectively) and infants weighing 1,000 grams or less (7.6 and 8.9 percent respectively).

Ethnic Comparisons in Trends During the Decade

Data for white non-Hispanic (W), Hispanic (H), Black (B) and Native American (A) women giving birth are given in Tables 1-10, 1-12, 1-14 and 1-16 respectively. From

1980 to 1989, teenage motherhood declined, older (30+ years) motherhood increased, single motherhood became more common, early prenatal care became less prevalent, rates of maternal risks and/or complications increased and caesarean section rates grew for all four ethnic groups.

Ethnic minorities differed from white non-Hispanics in that a lower proportion of mothers of each minority had less than 9 years of education in 1989 than in 1980. Multiple births comprised a larger share of live deliveries to white non-Hispanic and Black women in 1989 than in 1980 but a smaller share of Hispanic and Native American deliveries. Native Americans were the only ethnic group with a decline both in the percent of mothers with no prenatal care and the percent of mothers with 1-4 prenatal visits. Use of midwives fell from 1980 to 1989 only among Black women giving birth.

The relative standing of the four ethnic groups was identical in 1980 and 1989 for 41 percent of the maternal characteristics. The maternal characteristics with a temporally stable rank-order from the highest to lowest rate of the four ethnic groups (W, H, B and A) were:

Maternal characteristic	Rank-order from high to low			
Unwed motherhood	B	A	H	W
Early prenatal care	W	B	H	A
Third trimester entry into care	A	H	B	W
9 or more prenatal visits	W	B	H	A
13 or more prenatal visits	W	B	H	A
Medical risks and/or complications	A	B	W	H
Prior live birth	A	H	B	W

Rank-orders changed from 1980 to 1989 for the remaining maternal characteristics. In the listing of these maternal characteristics given below, the ethnic group that occupied that rank in 1980 and 1989 is given first and second respectively.

Maternal characteristic	Rank-order from high to low			
Teenage motherhood	B,B	A,H	H,A	W,W
Older motherhood (30 years old & older)	A,W	W,A	H,H	B,B
Less than 9 years of education	H,H	A,A	B,W	W,B
No prenatal care	A,B	H,H	B,A	W,W
1-4 prenatal visits	A,A	H,B	B,H	W,W
5 or more prenatal visits	W,W	H,A	B,H	A,B
Multiple births	H,B	W,W	A,H	B,A
Delivered in hospital	H,A	A,B	B,H	W,W
Attended by midwife	A,A	B,H	H,B	W,W
Delivered by caesarean section	B,W	W,B	H,H	A,A

Profile of white non-Hispanic newborns. The LBW rate of white non-Hispanic infants increased from 5.9 percent in 1980 to 6.1 percent in 1989 (Table 1-10). The 1989 LBW rate exceeded the 1990 Public Health Service objective by 22 percent. The increase from 1980 to 1989 in the rate of prematurity was four times greater than the LBW increase of 5 percent. Prematurity accounted for 73 percent of white non-Hispanic LBW infants in 1989 compared to 55 percent in 1980 (Table 1-11). If the increase in prematurity had been prevented, 434 fewer LBW infants would have been born in 1989.

The majority of white non-Hispanic LBW babies in 1989 were girls; were delivered in a hospital; and were born to mothers who began prenatal care early and had 9 or more prenatal visits, medical risks or complications and a prior live birth. Almost one-third were delivered by caesarean section, the highest percentage among ethnic groups, and 28 percent delivered by unmarried mothers. Mothers of white non-Hispanic LBW infants were 2.4 times more likely to be older than 29 years than to be teenagers.

Profile of Hispanic newborns. Prematurity and LBW rates both declined from 1980 to 1989 for Hispanic newborns, with both 1989 rates lower than the corresponding rates for white non-Hispanic newborns (Tables 1-10 and 1-12). Hispanic 1980 rates of both had exceeded the white non-Hispanic rates. The two ethnic groups also differed in that the rate of multiple births declined for Hispanics but increased for white non-Hispanics. The 1989 prematurity rate was 6 percent lower than the 1980 rate and the lowest rate of the decade for Hispanic newborns.

Prematurity accounted for 72 percent of Hispanic LBW births in 1989 compared to 54 percent in 1980 (Table 1-13). The majority of Hispanic LBW babies were girls; were delivered in a hospital; and were born to mothers who began prenatal care early and had 5 or more prenatal visits, medical risks or complications and a prior live birth. Three out of ten were delivered by caesarean section and 48 percent delivered by an unmarried mother. Hispanic mothers of LBW infants were more likely to be teenagers than to be older than 29 years.

Profile of Black newborns. The Black LBW rate increased from 11.6 percent in 1980 to 14.1 percent in 1989, a four times greater rise than the one seen for white non-Hispanic infants (Tables 1-10 and 1-14). The 1989 Black LBW rate exceeded the 1990 Public Health Service objective by 57 percent. Moreover, the LBW rate increased four times more than the prematurity rate for Black infants. More than one in five Black newborns were born prematurely in 1989, the highest rate among the ethnic groups.

Both VLBW and infants weighing no more than 1,000 grams also have their greatest representation among Black LBW newborns (Table 1-15). Prematurity characterized 75 percent of Black LBW newborns in 1989 compared to 58 percent in 1980. The majority of Black LBW babies were girls; were delivered in a hospital; and were born to mothers who were unmarried, began prenatal care in the first trimester, and had 5 or more prenatal visits, medical risks or complications and a prior live birth. Less than one-quarter were delivered by caesarean section, the lowest rate among the ethnic groups. Black mothers of LBW newborns were more likely to be teenagers than to be older than 29 years.

Profile of Native American newborns. Both the prematurity and LBW rates declined from 1980 to 1989 for Native American newborns, with the 1989 rates of both the lowest among the ethnic groups. The 17 percent decline from 1980 to 1980 made the 1989 prematurity rate of Native American newborns the lowest of the decade (Table 1-16). Like Hispanics, the rate of multiple births also declined from 1980 to 1989.

Despite its decline in rate, prematurity accounted for 74 percent of LBW newborns in 1989 compared to 43 percent in 1980, the largest percent difference (31 percent) between the start and the end of the decade for any ethnic group (Table 1-17). The majority of Native American LBW babies were girls; were delivered in a hospital; and were born to mothers who were unmarried, began prenatal care after the first trimester and had 5 or more prenatal visits, medical risks and complications (the highest rate among the ethnic groups) and a prior live birth. Twenty-seven percent were delivered by caesarean section. Native American mothers of LBW newborns were more likely to be older than 29 years than to be teenagers.

Birth Characteristics Reported in New Format or First Reported in 1989

The Profile in General and by Region and Ethnicity

Some experience is usually necessary before the data are reported as accurately and completely as possible on a new form. Because 1989 was the introductory year for the new birth certificate form, it is assumed that the new data elements are probably underreported. Data in future years will indicate if this assumption is reasonable.

Paying party for the delivery. Private health insurance paid for a slight majority (50.6 percent) of the live births delivered in 1989 (Table 1-18). The Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid alternative, was the payee for the next largest share of deliveries at 26.5 percent, followed by payment by the women themselves at 12.1 percent. The Indian Health Service paid for 6 percent of deliveries and the payee was unknown for nearly 5 percent of deliveries.

Urban women were 60 percent more likely to have their deliveries covered by private health insurance than rural women (56 and 35 percent respectively). The Indian Health Service was like a compensating payee for rural women, covering 19 percent of their births. The other payees were represented among urban and rural deliveries in about the 3:1 ratio that applied to their respective number of births.

Private health insurance was the largest payor for deliveries of white non-Hispanic women at 65 percent. In contrast, AHCCCS was the largest payor for deliveries of Hispanic and Black women (43 and 50 percent respectively). Unsurprisingly, the Indian Health Service covered the largest share (59 percent) of deliveries to Native American women. Self pay was most prevalent among Hispanic women (17 percent), followed by white non-Hispanics (11 percent), Blacks (8 percent) and Native Americans (3 percent). The rate of unknown data (9 percent) was twice as high for Native American women than for women of any other ethnic group.

Specific medical risk factors. A medical risk factor was reported for 21 percent of women giving birth (Table 1-18). Unfortunately, the "other" and unspecified category accounted for more than one-half of these reports. Among the specified risk factors, pregnancy-related hypertension was most common (2.8 percent of births), followed by diabetes, anemia, genital herpes, previous small-for-gestational age (SGA) or preterm infant, previous infant of at least 4,000 grams, chronic hypertension, uterine bleeding, Rh sensitization, cardiac disease, and acute or chronic lung disease (0.2 percent of births).

Rural compared to urban women giving birth were disproportionately represented among 8 of the 11 specific medical risk factors. Only genital herpes was higher for urban women, while cardiac disease and uterine bleeding were roughly proportional to the number of live births to women in the two regional groups.

While 20 percent of white non-Hispanic mothers had any medical risk, 35 percent of Native American mothers were reported with a medical risk, followed by Black mothers with 25 percent. Acute or chronic lung disease was disproportionately higher for Black women, while genital herpes, Rh sensitization and uterine bleeding were greater among white non-Hispanic women. The other 7 medical risks were disproportionately higher for Native American women.

Substance use during pregnancy. One in five women giving birth smoked and/or used alcohol during pregnancy (Table 1-18). Fifteen percent smoked only, 4 percent used alcohol only and 2 percent did both. Use of cigarettes and/or alcohol was somewhat more prevalent among urban than rural women (21.9 and 18.6 percent respectively).

Use of either or both substances was highest among Black women (30 percent), followed by white non-Hispanic women (27 percent). Hispanic and Native American rates of any use were at least 41 percent lower (11 and 9 percent respectively). Smoking only was disproportionately higher for white non-Hispanic women, while use of alcohol either alone or combined with smoking was greater for Black women.

Weight gain during pregnancy. Seven out of ten women giving birth gained at least 21 pounds during their pregnancy (Table 1-18). Less than one percent gained no weight, 3 percent gained 1-10 pounds and 14 percent gained 11-20 pounds. Weight gain for 13 percent was unknown. Urban and rural women had very similar weight gain distributions.

Weight gain during pregnancy was 2.2 times more likely to be unrecorded for women of each ethnic minority than for white non-Hispanic women (18 and 8 percent

respectively). Among women with a recorded weight gain, each ethnic minority gained less weight on average than did white non-Hispanic women. About three-quarters of Black and Hispanic women and only 65 percent of Native American women gained at least 21 pounds compared to 84 percent of white non-Hispanic women.

Obstetric procedures. One in seven women had none of the obstetric procedures listed on the certificate (Table 1-18). Procedures totaled 107,034 for an average of 1.6 procedures per woman giving birth. Electronic fetal monitoring was performed on 66 percent of women, ultrasound on 58 percent, stimulation of labor on 11 percent and induction of labor on 10 percent. Less than 3 percent of women giving birth received either amniocentesis or tocolysis. (Seven percent of women giving birth in 1989 were 35 or more years old, the ages when amniocentesis is recommended.)

Electronic fetal monitoring was disproportionately greater for rural than for urban women, while induction of labor was done equally on women in the two regions. All other obstetric procedures were performed more frequently on urban than rural women. However, urban relative to rural women also were more likely to receive no procedure.

Ethnic minority women were 55 percent more likely to have no obstetric procedure recorded than white non-Hispanic women (17 and 11 percent respectively). White non-Hispanic women, with 59 percent of the births, accounted for 70 percent of the amniocentesis procedures done, 69 percent of labor inductions and 64 percent of ultrasounds done. Tocolysis was disproportionately greater among Black women.

Method of delivery. For 64 percent of the women delivered by caesarean section, it was their first (Table 1-18). White non-Hispanic women accounted for 65 percent of the first or primary caesarean sections and 67 percent of the deliveries using forceps. Forceps deliveries also were more common among urban than rural women. Native American women were twice as likely to deliver vaginally after a previous c-section than any other ethnic group of women giving birth (4 and 2 percent respectively).

Complications of labor and/or delivery. More than one-third (34.6 percent) of births had at least one complication of labor and/or delivery recorded. As with medical risks, "other", unfortunately, was the most commonly used category. Among specifically listed complications, moderate/heavy meconium was most common (6.5 percent), followed by breech/malpresentation of baby, fetal distress, premature rupture of maternal membranes, cephalopelvic disproportion, dysfunctional labor, precipitous labor, prolonged labor and febrile condition (1 percent).

For the 9 complications recorded on at least 1 percent of births, 5 were more common proportionally among rural births, three more common among urban births and one, breech/malpresentation of baby, equally represented in the two regions. Premature rupture of membranes, precipitous labor, prolonged labor, fetal distress and dysfunctional labor applied more to rural than urban births. Urban births had a greater percent of febrile, moderate/heavy meconium and cephalopelvic disproportion complications.

Five of these 9 complications were proportionally more prevalent among births of Native American mothers, namely febrile, premature rupture of membranes, precipitous labor, prolonged labor and dysfunctional labor. Medium/heavy meconium, fetal distress and cephalopelvic disproportion complicated births of Black mothers at higher rates. Breech/malpresentation was a more likely birth complication of white non-Hispanics.

Abnormal conditions of the newborn. Any abnormal condition was recorded for 7.3 percent of newborns, with "other" again the majority response (Table 1-18). The most prevalent specified condition, assisted ventilation, applied to only 1.6 percent of all newborns, while the next most prevalent, hyaline membrane disease, was recorded on 0.4 percent of births. Rural compared to urban newborns had higher rates of anemia, birth injury, fetal alcohol syndrome, assisted ventilation, hyaline membrane disease and

meconium aspiration syndrome. Seizures were similarly represented among newborns of the two regions. "Other" was more prevalent among urban than rural births.

Newborns of Black mothers had a 39 percent higher rate of abnormal conditions than newborns of the three other maternal ethnic groups (10.0 and 7.2 percent respectively). Ethnic minority mothers accounted for 41 percent of the newborns reported to have any abnormal condition, but the majority of newborns with meconium aspiration syndrome and fetal alcohol syndrome.

Congenital anomalies. Two percent of newborns were reported to have any congenital anomaly. Rates of congenital anomalies barely differed between rural and urban newborns (2.1 and 1.9 percent respectively). Newborns of Black mothers had the highest rate (2.8 percent), followed by newborns of Native American mothers (2.1 percent), newborns of Hispanic mothers (2.0 percent) and newborns of white non-Hispanic mothers (1.9 percent).

Newborn Intensive Care. Almost 2,600 or 3.8 percent of newborns in 1989 were admitted to newborn intensive care units (NICUs). Surprisingly, only 55 percent of the NICU admissions were low birthweight (LBW) babies, while 45 percent were not LBW newborns. Prematurity, i.e., gestational age < 38 weeks, captured more NICU admissions than did LBW, with 65 percent of admissions being premature. About 52 percent of newborns admitted to NICUs were both premature and LBW.

Urban newborns were admitted to NICUs at a slightly higher rate than rural newborns (4.1 and 3.1 percent respectively). Both the proportion of LBW and of premature newborns among NICU admissions differed between the two regions, with the proportions higher for rural than urban newborns. LBW babies comprised 53 percent of urban admissions but 63 percent of rural admissions. Prematurity accounted for 63 and 71 percent of urban and rural newborn admissions respectively.

The proportion of LBW babies among NICU admissions also differed substantially among maternal ethnic groups (Table 1-18). LBW newborns comprised 74 percent of Black admissions to NICUs, 65 percent of Native American admissions, 55 percent of Hispanic admissions and only 52 percent of white non-Hispanic admissions. Differences in prematurity rates were smaller, ranging from a low of 61 percent for newborns of Hispanic mothers to a high of 76 percent for newborns of Black mothers.

Almost 79 percent of the newborns admitted to NICUs were delivered by mothers who had at least 5 prenatal visits during pregnancy. Hence, ensuring that all women giving birth in 1989 had 5 or more prenatal visits would have reduced the caseloads of NICUs by only 21 percent or 462 newborns. The proportion of newborn admissions to NICUs with mothers who had at least 5 prenatal visits varied substantially from a high of 85 percent for newborns of white non-Hispanic mothers to a low of 56 percent for newborns of Black mothers, a percent difference of 29 points.

The Profile by an Index of Socioeconomic Status

Years of maternal education was the only possible index of socioeconomic status (SES) on the birth certificate before 1989. Paying party for the delivery became another SES indicator in 1989. AHCCCS versus private health insurance (PHI) compared mothers of lower and higher SES respectively. The relative SES position of the other payee statuses, Indian Health Service (IHS), self and unknown, was less clear, but all should be lower than private health insurance mothers.

The payee SES indicator was strongly related to the maternal education indicator of SES (Table 1-19). PHI mothers were 4.3 times more likely to have some college education than were AHCCCS mothers (45.6 and 10.6 respectively). The three other groups were intermediate, ranging from 18 to 29 percent. Four percent of PHI mothers had 0-8 years of education compared to 14 percent of AHCCCS mothers.

Other demographic characteristics of mothers. Motherhood before the age of 25 applied to 64 percent of the AHCCCS deliveries but a minority of deliveries in every other payee group (Table 1-19). Seven out of ten mothers with PHI were at least 25 years old, the highest rate among the groups. Only 13 percent of mothers with PHI were unmarried compared to 60 percent of AHCCCS mothers. Unwed rates were 29, 30 and 56 percent for self-pay, unknown-payee and IHS mothers respectively.

Prenatal care. AHCCCS mothers were least likely to begin prenatal care in the first trimester (42 percent), while PHI mothers were most likely (81 percent), almost a twofold difference (Table 1-19). A minority of IHS mothers had early prenatal care (47 percent) compared to a majority (about 57 percent) of both self-paying and unknown-payee mothers. However, 10.2 percent of mothers who self-paid and 7.2 percent of mothers with an unknown payee had no prenatal care compared to 5.4 percent of AHCCCS mothers. Less than one percent of PHI mothers had no prenatal care.

AHCCCS was the only payee group in which a majority of the mothers did not receive at least 9 prenatal visits during pregnancy. PHI mothers were most likely to have had this amount of care (83 percent), followed by self-paying mothers at 60 percent, unknown-payee mothers at 54 percent and IHS mothers at 52 percent. In addition, AHCCCS mothers were over 5 times more likely to have less than five prenatal visits (20 percent) than were PHI mothers (3.5 percent).

Substance use and weight gain during pregnancy. One-third of AHCCCS mothers smoked or used alcohol during pregnancy, the highest rate among groups. Self-paying mothers used either substance at the next highest rate (23 percent), followed by PHI mothers (16.4 percent), unknown-payee mothers (14.8 percent) and IHS mothers (7.3 percent). Using both substances was least prevalent among IHS mothers (1.0 percent) and most prevalent among AHCCCS mothers (3.4 percent).

A majority of mothers in every group gained at least 21 pounds during pregnancy. A weight gain of this amount was most prevalent among PHI mothers (78 percent) and least prevalent among IHS mothers (53 percent). A pregnancy gain of less than 11 pounds was most common for IHS mothers (7.4 percent) and AHCCCS mothers (4.5 percent).

Specific medical risk factors and obstetric procedures during pregnancy. IHS mothers had the highest rate of noted medical risk factors at 37 percent, followed by AHCCCS mothers at 24 percent, unknown-payee mothers at 21 percent, PHI mothers at 18 percent and self-pay mothers at 16 percent. Those risk factors noted on at least one percent of each group of mothers are given in rank-order from high to low prevalence.

The specific medical risks of IHS mothers that met the above criterion were anemia; pregnancy-related hypertension; diabetes; previous infant of 4,000 or more grams; previous SGA or preterm infant; and chronic hypertension. The first three of these risks in the same ranking applied to AHCCCS mothers. The risks for PHI mothers were pregnancy-related hypertension; diabetes; genital herpes; and anemia. The top three risks for both self- and unknown-pay mothers were pregnancy-related hypertension; anemia; and diabetes. For unknown-pay mothers, previous SGA or preterm infant and previous infant of at least 4,000 gms. also were risks with 1 percent prevalence.

Thirty percent of unknown-pay mothers received no obstetric procedure, the highest rate, compared to a low of 9 percent for PHI mothers. The average number of procedures among mothers who received at least one was 1.9 for PHI mothers, 1.8 for both AHCCCS and IHS mothers, 1.7 for unknown-pay mothers and 1.6 for self-pay mothers. PHI mothers, with 50.6 percent of the births, accounted for 69 percent of the amniocentesis procedures performed, 63 percent of tocolysis procedures, 59 percent of ultrasounds, 58 percent of inductions of labor and 54 percent of stimulations of labor.

Complications of labor and/or delivery. As with medical risks, IHS mothers had the highest prevalence of complications at 38 percent, followed by AHCCCS mothers at 37 percent, PHI mothers at 35 percent, self-pay mothers at 29 percent and unknown-pay mothers at 28 percent. Based on a criterion of at least one percent prevalence, 11 complications met this criterion for IHS mothers, 8 for AHCCCS mothers, 7 for both PHI and self-pay mothers, and 9 for unknown-pay mothers. The most common complication in every group was moderate/heavy meconium. Fetal distress ranked as one of the top four complications in every group, although its actual ranking differed.

Method of delivery. Although IHS mothers had the highest prevalence of both medical risks during pregnancy and complications of labor and/or delivery, they had the lowest rate of either primary or repeat caesarean section (10.6 percent). PHI mothers had nearly double the rate of c-section (21 percent) and the highest rate among the groups. AHCCCS mothers, with the second highest rate of both medical risks and complications, had the second highest rate of c-section (17 percent).

Abnormal conditions of the newborn and congenital anomalies. One in ten newborns of AHCCCS mothers were reported with an abnormal condition. Rates of abnormal conditions were lower in each of the four other groups, with the 5.6 percent rate for newborns of self-paying mothers the lowest. Almost 4 percent of the newborns with abnormal conditions of IHS mothers had fetal alcohol syndrome.

For every 1,000 newborns of unknown-pay mothers and of AHCCCS mothers, 29 and 26 had a congenital anomaly recorded. The prevalence of congenital anomalies was below 20 per 1,000 for newborns of IHS mothers, PHI mothers or self-paying mothers.

Prematurity and low birthweight (LBW) of newborns. The highest prematurity rate of 14 percent seen in newborns of AHCCCS mothers exceeded the lowest prematurity rate of 11.2 percent seen in newborns of IHS mothers by 25 percent. Newborns of PHI, self-pay and unknown-pay mothers had similar premature rates, ranging from 12.2 to 12.8 percent. LBW rates also were highest (7.8 percent) and lowest (5.1 percent) for AHCCCS and IHS newborns respectively. Newborns of PHI, self-pay and unknown-pay mothers differed more on LBW than on prematurity, with LBW rates of 5.8, 6.0 and 7.3 percent respectively. Less than 10 percent of LBW newborns of IHS mothers were very low birthweight compared to at least 15 percent in each of the four other groups.

Ninety percent of PHI mothers with LBW newborns had at least 5 prenatal visits. This amount of prenatal care was received by at least 61 percent but no more than 68 percent of the mothers who delivered a LBW baby in the other four groups.

Newborn intensive care units (NICUs). In conformance with the two extremes on the rates of prematurity and LBW, newborns of AHCCCS mothers were admitted to NICUs at the highest rate (4.3 percent) and newborns of IHS mothers at the lowest rate (2.2 percent), nearly a twofold difference. Newborns of unknown-pay mothers, of PHI mothers and of self-pay mothers had admission rates of 4.1, 3.9 and 3.3 percent respectively. Newborns admitted to NICUs of IHS mothers were more likely to be LBW (65 percent) or both premature and LBW (60 percent) than newborns admitted in each of the other four groups.

The proportion of admissions who were LBW ranged 13 percentage points among the groups, with admitted infants of PHI mothers least likely to be LBW (53 percent). Prematurity not only characterized a greater proportion of infants who were admitted to NICUs but also ranged by only 3 percentage points from a high of 65 to a low of 62.

The overall probability that a newborn is admitted to intensive care is greater if the infant is LBW (33 percent) than if he/she is premature (20 percent), largely because the prevalence of LBW is lower than the prevalence of prematurity. However, the conditional probability of NICU admission given LBW varied greatly by payee group,

while the conditional probability of NICU admission given prematurity did not. For every 100 LBW babies born, 56 of AHCCCS mothers, 43 of IHS mothers, 36 of PHI mothers and 32 of both self- and unknown-pay mothers were admitted to NICUs. In contrast, the lowest conditional probability of admission to an NICU if an infant is premature was 13 percent (IHS) and the highest was 20-21 percent (AHCCCS, PHI and unknown).

TABLE 1-1

BIRTH RATES[1] BY ARIZONA COUNTY OF RESIDENCE,
ARIZONA AND UNITED STATES,[2] 1980-1989

AREA	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent Change From 1980
U.S.	15.8	15.9	15.9	15.5	15.5	15.8	15.6	15.7	15.9	16.2	+2.5
ARIZONA	18.4	18.4	18.2	18.0	17.9	18.6	18.1	18.3	18.2	18.0	-2.2
Apache	31.2	32.0	33.1	31.4	34.9	32.9	29.0	29.7	29.4	26.8	-14.1
Cochise	18.1	18.5	17.3	17.2	17.7	16.2	15.6	16.0	16.0	16.5	-8.8
Coconino	24.3	21.6	21.2	22.2	22.0	22.6	20.5	21.8	20.7	20.9	-14.0
Gila	19.0	20.2	21.2	17.5	17.7	16.8	15.7	14.2	16.3	15.9	-16.3
Graham	22.4	21.9	19.6	18.0	18.6	17.4	16.1	18.0	17.0	17.9	-20.1
Greenlee	23.8	24.7	19.5	15.4	17.1	18.5	11.1	12.9	11.6	11.0	-53.8
La Paz[3]	NA	NA	NA	17.3	14.5	16.3	15.2	14.0	15.0	15.0	-13.3[4]
Maricopa	17.8	17.9	17.8	17.6	17.7	18.8	18.5	18.4	18.4	18.2	+2.2
Mohave	15.6	15.6	15.5	15.5	15.2	13.3	13.8	14.8	15.0	16.2	+3.8
Navajo	28.1	26.2	26.6	26.5	26.3	26.2	25.6	26.2	25.2	25.1	-10.7
Pima	16.8	16.6	16.1	16.5	16.0	16.5	16.2	15.6	16.4	15.8	-6.0
Pinal	20.2	20.3	20.5	19.3	18.8	20.5	19.8	19.8	19.0	18.5	-8.4
Santa Cruz	24.4	24.5	22.3	20.6	22.8	19.3	18.3	18.7	22.1	22.6	-7.4
Yavapai	13.8	14.3	14.8	14.0	12.3	12.4	12.3	12.3	13.1	12.3	-10.9
Yuma	19.8	21.3	20.0	20.1	20.4	21.8	22.4	22.0	22.9	25.0	+26.3

1 Rates are presented per 1,000 population.
2 U.S. data from the National Center for Health Statistics; rates for 1988 and 1989 are provisional and rates for 1980-1987 are final.
3 Included in Yuma County prior to 1983.
4 Percent change from 1983-1989.

TABLE 1-2

GENERAL FERTILITY RATE,[1] TOTAL FERTILITY RATE,[2] AND AGE-SPECIFIC LIVE BIRTH RATES,[3] ARIZONA AND UNITED STATES,[4] 1980-1989

Year	Area	General Fertility Rate	Total Fertility Rate	AGE-SPECIFIC BIRTH RATES BY AGE OF MOTHER							
				Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and Over
1980	Arizona	80.1	2,141	1.3	66.1	137.4	123.9	67.6	26.6	5.0	0.3
	U.S.	68.4	1,839	1.1	53.0	115.1	112.9	61.9	19.8	3.9	0.2
1981	Arizona	79.0	2,099	1.1	65.8	134.9	119.7	67.9	24.9	5.3	0.2
	U.S.	67.4	1,815	1.1	52.7	111.8	112.0	61.4	20.0	3.8	0.2
1982	Arizona	78.7	2,119	1.2	67.4	137.0	119.9	67.5	25.5	5.0	0.4
	U.S.	67.3	1,828	1.1	52.9	111.3	111.0	64.2	21.1	3.9	0.2
1983	Arizona	77.1	2,073	1.1	65.9	132.8	117.2	67.6	25.6	5.2	0.3
	U.S.	65.8	1,803	1.1	51.7	108.3	108.7	64.6	22.1	3.8	0.2
1984	Arizona	77.2	2,098	1.0	63.6	137.4	116.7	70.1	25.5	5.0	0.3
	U.S.	65.4	1,806	1.2	50.9	107.3	108.3	66.5	22.8	3.9	0.2
1985	Arizona	79.6	2,190	0.9	67.0	144.8	118.8	73.8	27.0	5.5	0.2
	U.S.	66.2	1,843	1.2	51.3	108.9	110.5	68.5	23.9	4.0	0.2
1986	Arizona	78.2	2,159	1.3	66.7	142.9	117.8	74.1	23.7	5.2	0.2
	U.S.	65.4	1,836	1.3	50.6	108.2	109.2	69.3	24.3	4.1	0.2
1987	Arizona	79.0	2,201	1.2	69.1	142.5	122.6	74.7	29.3	5.2	0.3
	U.S.	66.1	1,871	1.3	51.1	108.9	110.8	71.3	26.2	4.4	0.2
1988	Arizona	79.3	2,259	1.3	69.9	142.8	126.2	75.2	30.5	5.7	0.2
	U.S.	67.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	Arizona	78.8	2,270	1.2	71.7	143.4	124.4	76.8	30.4	5.9	0.3
	U.S.	68.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Percent change from 1980:											
	Arizona	-1.6	+6.0	-7.7	+8.5	+4.4	+0.4	+13.6	+14.3	+18.0	0.0

1 The general fertility rate is the total number of live births per 1,000 women of childbearing age (15-44 years old).

2 The total fertility rate is the sum of each age-specific live birth rate multiplied by the number of years in the age group (five years in this case). In Table 1-2 the rate of 2,259 in 1988, for example, means that if a hypothetical group of 1,000 women were to have the same birth rates in each age group that were observed in the actual childbearing population in 1988, they would have a total of 2,259 children by the time they reached the end of the reproductive period (taken here as age 50), assuming that all of the women survived to that age.

3 The age-specific live birth rate is the number of live births per 1,000 women in a specific age-group. For females under 15, the rate is calculated using the female population 10-14 years of age. For women over 44 the rate is calculated using the female population 45-49 years of age.

4 U.S. data furnished by the National Center for Health Statistics.

TABLE I-3

LIVE BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (ALL ETHNIC GROUPS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF BIRTHS:	50,049	51,620	52,628	52,919	55,109	59,344	60,822	63,320	65,544	67,128	+34.1
					PERCENT OF LIVE BIRTHS:						
AGE OF MOTHER:											
< 19 years	16.6	16.0	15.6	14.8	13.8	13.5	13.8	13.9	13.8	14.0	-15.7
≥ 30 years	18.7	19.6	20.3	21.1	22.0	22.9	23.6	24.5	25.4	26.4	+41.2
MARITAL STATUS:											
Unmarried	18.7	19.4	20.5	22.1	23.3	23.9	25.6	27.1	28.6	30.7	+64.2
MOTHER'S EDUCATION:											
< 9 years	8.6	8.2	7.5	7.0	7.0	7.1	7.1	6.8	6.9	8.4	-2.3
MOTHER'S ETHNIC GROUP:											
White[1]	63.1	63.0	63.5	63.6	63.8	64.0	62.5	62.6	60.8	58.8	-6.8
Hispanic	23.0	23.0	22.1	21.7	21.9	22.0	23.1	22.7	24.3	26.3	+14.3
Black	3.3	3.4	3.4	3.4	3.5	3.3	3.5	3.6	3.7	3.8	+15.2
Native American	9.6	9.4	9.9	10.0	9.6	9.2	9.4	9.5	9.5	9.4	-2.1
Other	1.1	1.1	1.1	1.2	1.2	1.5	1.4	1.6	1.7	1.6	+45.5
PRENATAL CARE BEGAN:											
1st trimester	68.8	72.5	73.5	71.9	70.5	70.1	70.1	68.7	66.2	64.5	-6.3
3rd trimester	5.7	4.9	4.7	5.2	6.1	5.8	6.2	6.7	7.2	8.2	+43.9
No care	2.1	2.0	2.0	2.1	2.1	2.0	1.9	2.2	2.6	3.6	+71.4
PRENATAL VISITS:											
1-4	6.5	5.8	5.7	5.8	6.4	6.0	6.5	6.7	7.2	7.4	+13.8
≥ 5	87.3	89.2	90.9	90.6	90.2	90.5	89.5	89.3	87.9	86.3	-1.1
≥ 9	66.8	69.0	71.3	71.9	72.9	71.5	70.4	71.8	70.2	68.0	+1.8
≥ 13	22.5	23.7	24.3	25.3	26.7	26.1	28.4	29.2	28.0	27.6	+22.7
MEDICAL RISKS/ COMPLICATIONS:[2]	33.8	36.3	37.2	38.8	39.7	40.2	43.2	50.2	52.1	46.6	+37.9
GESTATIONAL AGE:[3]											
< 38 weeks	11.6	11.7	11.4	11.7	11.7	12.5	12.5	12.6	12.8	12.6	+8.6
BIRTH WEIGHT:											
< 2,500 grams	6.2	6.0	5.8	6.1	6.1	6.3	6.2	6.5	6.3	6.4	+3.2
≤ 1,500 grams	0.9	0.9	0.8	1.0	1.0	1.0	1.1	1.2	1.0	1.0	+11.1
CHILD'S SEX:											
Male	51.4	51.1	51.5	51.6	51.3	51.0	51.0	51.1	51.2	51.4	0.0
Female	48.6	48.9	48.5	48.4	48.7	49.0	49.0	48.9	48.8	48.6	0.0
PLURALITY:											
Multiple births	1.9	1.8	1.6	2.0	1.8	1.8	1.9	2.1	2.0	2.0	5.3
CAESAREAN DELIVERY:	12.8	14.0	14.5	14.8	15.7	16.4	18.1	18.4	17.0	18.8	+46.9
PLACE OF DELIVERY:											
Hospital[4]	98.4	98.6	98.6	98.5	98.6	98.7	96.8	97.0	97.2	98.4	0.0
ATTENDANT AT BIRTH:											
Midwife[5]	6.4	6.5	6.5	6.4	6.3	6.8	6.7	7.0	7.3	7.8	+21.9
PREVIOUS LIVE BIRTHS:											
1 or more	58.1	58.5	59.1	59.8	61.0	60.6	60.8	61.4	62.2	61.8	+6.4

1 Non-Hispanic.
2 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.
3 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestiaional age were computed from information on "date of birth" and "date of last normal menses"
4 Hospital, clinic, medical center or maternity home.
5 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-4

LOW-BIRTHWEIGHT BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (ALL ETHNIC GROUPS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF LBW BIRTHS:	3,089	3,103	3,076	3,204	3,377	3,712	3,786	4,107	4,110	4,279	+38.5
					PERCENT OF LOW-BIRTHWEIGHT BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	20.7	20.2	18.7	20.9	16.8	17.3	17.1	18.1	16.7	17.0	-17.9
≥ 30 years	18.0	18.6	19.2	19.2	22.2	23.3	24.4	24.0	26.2	27.5	+52.8
MARITAL STATUS:											
Unmarried	28.1	27.8	27.7	33.8	32.7	33.1	34.0	35.5	37.7	39.6	+40.9
MOTHER'S EDUCATION:											
< 9 years	10.3	10.4	8.4	8.3	8.0	8.8	9.0	7.5	8.1	7.8	-24.3
MOTHER'S ETHNIC GROUP:											
White[1]	59.8	59.8	61.5	59.3	61.7	61.8	60.1	61.2	57.5	56.7	-5.2
Hispanic	24.1	22.3	23.1	23.1	21.9	21.5	23.2	21.6	24.5	24.5	+1.7
Black	6.2	7.4	5.5	7.8	7.0	6.7	7.3	7.2	8.2	8.3	+33.9
Native American	9.1	9.2	8.9	8.8	7.9	8.5	8.0	8.2	8.2	8.5	-6.6
Other	1.0	1.2	1.0	1.1	1.4	1.5	1.5	1.7	1.7	2.0	+100.0
PRENATAL CARE BEGAN:											
1st trimester	64.6	69.3	71.9	71.3	69.4	68.1	66.1	64.7	63.1	59.4	-8.1
3rd trimester	5.6	4.6	4.5	4.1	6.0	4.9	5.2	6.2	6.3	7.3	+30.4
No care	4.9	5.4	5.5	5.5	4.6	4.3	4.6	4.7	6.3	7.6	+55.1
PRENATAL VISITS:											
1-4	13.0	11.1	11.1	10.3	11.3	10.7	13.0	12.5	12.9	12.4	-4.6
≥ 5	75.1	78.9	80.9	81.4	81.9	82.1	77.8	79.0	77.3	76.0	+1.2
≥ 9	45.3	51.0	54.2	56.3	58.8	57.4	52.9	55.7	53.3	52.0	+14.8
≥ 13	13.6	13.8	15.7	16.1	20.7	18.9	20.3	21.4	21.3	20.7	+52.2
MEDICAL RISKS/ COMPLICATIONS:[2]	56.7	57.2	58.1	59.0	57.9	59.8	64.2	70.1	72.1	68.5	+20.8
GESTATIONAL AGE:[3]											
< 38 weeks	53.9	55.2	53.7	55.8	55.5	58.0	67.9	67.1	64.5	73.1	+35.6
BIRTH WEIGHT:											
≤ 1,500 grams	14.7	15.2	13.8	16.1	15.6	16.5	18.0	17.9	16.5	15.9	+8.2
≤ 1,000 grams	7.2	6.9	6.6	6.8	7.2	7.8	8.3	8.8	8.1	8.5	+18.1
CHILD'S SEX:											
Male	47.7	46.8	46.0	48.8	45.5	47.8	48.6	47.6	47.9	47.5	-0.4
Female	52.3	53.2	54.0	51.2	54.5	52.2	51.4	52.4	52.1	52.5	+0.4
PLURALITY:											
Multiple births	15.3	15.1	13.4	16.4	14.3	15.7	16.5	17.5	17.3	16.5	+7.8
CAESAREAN DELIVERY:	20.7	21.4	25.1	26.0	28.1	29.5	31.5	32.6	29.3	30.5	+47.3
PLACE OF DELIVERY:											
Hospital[4]	98.5	98.6	98.6	99.1	99.3	99.5	97.6	97.5	97.4	98.8	+0.3
ATTENDANT AT BIRTH:											
Midwife[5]	3.2	3.7	2.5	2.4	2.3	2.7	2.3	2.4	2.9	2.8	-12.5
PREVIOUS LIVE BIRTHS:											
1 or more	55.0	56.2	57.0	56.2	58.1	58.5	58.3	59.5	59.4	59.4	+8.0

1 Non-Hispanic.
2 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.
3 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestiaional age were computed from information on "date of birth" and "date of last normal menses"
4 Hospital, clinic, medical center or maternity home.
5 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-5

LIVE BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (URBAN REGIONS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF BIRTHS:	35,700	36,930	37,753	38,343	40,389	44,058	45,757	47,548	49,325	50,436	+41.3
					PERCENT OF LIVE BIRTHS:						
AGE OF MOTHER:											
< 19 years	16.1	15.0	14.8	14.1	13.2	12.9	13.1	13.1	13.1	13.3	-17.4
≥ 30 years	18.8	20.0	20.4	21.5	22.3	23.1	24.0	24.7	25.9	27.1	+44.1
MARITAL STATUS:											
Unmarried	18.0	18.3	19.5	20.9	21.9	22.5	24.1	25.4	27.1	29.2	+62.2
MOTHER'S EDUCATION:											
< 9 years	8.3	7.9	7.1	6.7	6.7	7.0	6.9	6.5	6.7	8.4	+1.2
MOTHER'S ETHNIC GROUP:											
White[1]	68.4	68.4	69.0	69.0	69.3	69.3	67.6	67.8	65.8	63.6	-7.0
Hispanic	23.6	23.4	22.6	22.3	22.2	22.4	23.6	23.2	24.6	26.8	+13.6
Black	3.9	4.1	4.0	4.1	4.1	3.9	4.1	4.1	4.2	4.4	+12.8
Native American	3.0	2.9	3.0	3.2	3.0	2.8	3.2	3.1	3.4	3.4	+13.3
Other	1.0	1.3	1.4	1.4	1.4	1.6	1.6	1.8	2.0	1.8	+80.0
PRENATAL CARE BEGAN:											
1st trimester	73.2	77.8	78.5	76.8	75.1	74.2	73.8	72.5	69.8	68.2	-6.8
3rd trimester	4.2	3.3	3.3	3.7	4.8	4.6	5.0	5.6	6.0	6.9	+64.3
No care	1.6	1.6	1.6	1.7	1.8	1.6	1.6	1.8	2.2	3.4	+112.5
PRENATAL VISITS:											
1-4	4.6	3.9	3.9	4.2	5.0	4.8	5.4	5.7	6.4	6.5	41.3
≥ 5	88.8	91.3	93.6	93.1	92.3	92.5	90.8	90.7	89.1	87.2	-1.8
≥ 9	71.0	74.0	76.9	77.1	78.0	75.9	73.8	74.9	73.4	71.1	+0.1
≥ 13	24.3	26.1	26.8	27.7	29.4	28.4	30.1	30.4	29.6	29.5	+21.4
MEDICAL RISKS/ COMPLICATIONS:[2]	33.4	36.5	36.8	38.0	39.4	39.5	42.9	51.3	52.8	46.4	+38.9
GESTATIONAL AGE:[3]											
< 38 weeks	11.5	11.6	11.2	11.7	11.7	12.4	12.3	12.5	12.5	12.9	+12.2
BIRTH WEIGHT:											
< 2,500 grams	6.1	6.0	5.7	6.0	6.2	6.2	6.2	6.5	6.2	6.3	+3.3
≤ 1,500 grams	0.9	1.0	0.8	1.0	1.0	1.2	1.1	1.2	1.0	1.1	+22.2
CHILD'S SEX:											
Male	51.4	51.4	51.4	51.5	51.4	51.1	51.1	51.2	51.3	51.4	0.0
Female	48.6	48.6	48.6	48.5	48.6	48.9	48.9	48.8	48.7	48.6	0.0
PLURALITY:											
Multiple births	1.9	2.0	1.7	2.0	1.9	1.8	2.0	2.2	2.0	2.1	+10.5
CAESAREAN DELIVERY:	13.5	14.8	15.1	15.2	16.4	17.3	18.8	19.4	18.0	19.4	43.7
PLACE OF DELIVERY:											
Hospital[4]	99.8	98.7	98.6	98.6	98.7	98.7	98.5	98.5	98.6	98.9	-0.9
ATTENDANT AT BIRTH:											
Midwife[5]	5.8	6.1	6.3	6.1	5.5	5.1	5.0	4.9	5.5	5.8	0.0
PREVIOUS LIVE BIRTHS:											
1 or more	56.1	57.1	57.5	58.2	59.1	59.0	59.1	59.7	60.1	60.3	+7.5

1 Non-Hispanic.
2 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrrent with pregnancy, and/or complications of labor/delivery.
3 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."
4 Hospital, clinic, medical center or maternity home.
5 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-6

LIVE BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (RURAL REGIONS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF BIRTHS:	14,349	14,690	14,875	14,576	14,720	15,286	15,065	15,772	16,219	16,692	+16.3
					PERCENT OF LIVE BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	17.8	18.3	17.8	16.6	15.6	15.2	15.7	16.1	15.9	15.8	-11.2
≥ 30 years	18.3	18.7	20.0	20.2	21.3	22.6	22.6	23.1	23.7	24.5	+33.9
MARITAL STATUS:											
Unmarried	20.6	22.0	23.1	25.4	27.0	27.7	30.4	32.1	32.8	35.2	+70.9
MOTHER'S EDUCATION:											
< 9 years	9.2	9.1	8.5	7.8	7.8	7.4	7.7	7.5	7.5	8.4	-8.7
MOTHER'S ETHNIC GROUP:											
White[1]	50.1	49.2	49.6	49.4	48.9	48.6	47.3	46.8	45.4	44.3	-11.6
Hispanic	21.3	22.2	20.8	20.0	21.0	21.0	21.6	21.4	23.5	25.0	+17.4
Black	1.6	1.8	1.9	1.8	1.8	1.8	2.0	2.1	2.0	1.9	+18.8
Native American	26.1	25.9	26.8	27.9	27.7	27.7	28.2	28.9	28.2	27.7	+6.1
Other	1.0	0.9	0.8	0.9	0.7	1.0	0.9	0.8	0.9	1.1	+10.0
PRENATAL CARE BEGAN:											
1st trimester	57.6	59.0	60.8	58.9	58.0	58.1	58.6	57.3	55.1	53.3	-7.5
3rd trimester	9.4	8.7	8.5	9.2	9.7	26.7	9.7	10.1	10.9	12.2	29.8
No care	3.2	3.0	3.1	3.2	3.2	3.1	2.8	3.2	4.0	4.3	+34.4
PRENATAL VISITS:											
1-4	11.1	10.3	10.3	10.0	10.0	9.4	9.7	9.4	9.5	9.9	-10.8
≥ 5	83.4	84.2	84.1	84.1	84.5	85.0	85.0	85.4	84.2	83.2	-0.2
≥ 9	56.3	56.4	57.0	58.3	59.0	59.2	59.6	62.5	60.4	58.2	+3.4
≥ 13	18.0	17.6	17.9	18.9	19.4	19.6	23.1	25.5	23.2	21.7	+20.6
MEDICAL RISKS/ COMPLICATIONS:[2]	34.8	35.8	38.3	40.6	40.6	42.2	43.8	46.8	50.2	47.2	+35.6
GESTATIONAL AGE:[3]											
< 38 weeks	11.7	11.9	11.7	11.6	11.6	12.7	13.1	13.1	13.8	11.9	+1.7
BIRTH WEIGHT:											
≤ 2,500 grams	6.3	6.1	6.1	6.3	6.0	6.3	6.3	6.3	6.5	6.7	+6.3
≤ 1,500 grams	0.8	0.8	0.7	1.0	0.8	0.9	1.1	1.0	1.0	0.9	+12.5
CHILD'S SEX:											
Male	51.5	50.2	51.6	51.8	51.0	50.9	50.8	50.9	51.0	51.3	-0.4
Female	48.5	49.8	48.4	48.2	49.0	49.1	49.2	49.1	49.0	48.7	+0.4
PLURALITY:											
Multiple births	1.8	1.4	1.4	2.0	1.5	1.8	1.9	1.9	2.1	1.9	+5.6
CAESAREAN DELIVERY:	10.9	12.2	12.9	13.7	13.7	13.9	16.2	15.3	14.1	16.5	+51.4
PLACE OF DELIVERY:											
Hospital[4]	94.8	98.5	98.5	98.2	98.5	98.5	92.0	92.4	92.9	97.1	+2.4
ATTENDANT AT BIRTH:											
Midwife[5]	8.0	7.4	6.9	7.3	8.4	11.6	11.8	13.1	12.7	14.0	+75.0
PREVIOUS LIVE BIRTHS:											
1 or more	62.9	61.8	63.0	63.9	64.5	65.3	65.3	66.2	65.0	66.2	+5.2

1 Non-Hispanic.
2 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrrent with pregnancy, and/or complications of labor/delivery.
3 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."
4 Hospital, clinic, medical center or maternity home.
5 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-7

LOW-BIRTHWEIGHT BIRTH RATIOS[1] IN THE UNITED STATES[2] AND IN METROPOLITAN AND NON-METROPOLITAN COUNTIES[3] OF ARIZONA, 1980 - 1989

County of Residence	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980 to 1989:
UNITED STATES	68.4	68.1	67.5	68.2	67.2	67.5	68.1	69.0	69.2	NA	NA
ARIZONA	61.7	60.1	58.4	60.5	61.3	62.5	62.2	64.9	62.7	63.7	+3.2
METROPOLITAN COUNTIES	61.3	60.0	57.4	59.5	61.6	62.3	62.0	65.3	62.1	62.8	+2.4
Maricopa	60.8	59.9	57.9	58.9	62.8	62.0	63.2	65.9	62.5	62.7	+3.1
Pima	62.6	60.1	55.8	61.8	58.1	63.2	58.2	63.6	60.7	63.3	+1.1
NON-METROPOLITAN COUNTIES	62.9	60.6	61.2	63.3	60.3	63.3	62.8	63.4	64.6	66.6	+5.9
Apache	60.2	64.8	63.4	62.1	60.0	73.9	73.4	64.8	60.8	62.9	+4.5
Cochise	72.6	74.1	71.4	90.1	77.3	66.7	57.1	67.9	59.8	71.1	-2.1
Coconino	61.4	64.6	54.3	66.4	62.3	67.8	61.8	57.3	60.5	63.2	+2.9
Gila	53.9	44.7	66.7	45.4	61.0	56.1	80.0	56.2	75.9	59.9	+11.1
Graham	54.7	84.5	47.0	46.0	29.2	71.4	73.4	33.7	62.2	62.5	+14.3
Greenlee	51.5	50.2	43.0	54.1	51.3	43.5	37.7	56.5	36.0	86.5	+68.0
La Paz[4]	NA	NA	NA	105.9	51.3	68.4	83.7	50.5	51.4	78.3	-26.0
Mohave	66.6	53.0	81.3	56.2	66.8	53.7	58.5	68.8	71.8	77.6	+16.5
Navajo	62.1	66.6	50.5	53.4	57.4	57.5	58.5	68.1	59.3	80.3	+29.3
Pinal	57.4	63.2	72.2	61.0	55.7	66.9	67.2	68.2	64.9	60.1	-10.8
Santa Cruz	66.1	40.5	65.2	52.5	31.3	87.9	69.4	65.8	87.2	57.1	-13.6
Yavapai	90.8	50.1	61.9	70.7	72.1	63.4	54.9	67.5	73.9	86.8	+42.8
Yuma	60.2	49.4	48.9	55.9	58.8	47.4	49.3	58.9	63.0	49.3	-18.1

1 Per 1,000 live births
2 U.S. data furnished by the National Center for Health Statistics
3 By county of residence
4 Included in Yuma county prior to 1983. Percent change calculated from 1983 to 1989.

TABLE 1-8

LOW-BIRTHWEIGHT BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (URBAN REGIONS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF LBW BIRTHS:	2,187	2,213	2,166	2,287	2,489	2,774	2,839	3,107	3,062	3,168	+44.9
					PERCENT OF LOW-BIRTHWEIGHT BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	21.0	19.4	18.7	21.0	15.9	17.3	16.6	16.8	15.5	16.2	-22.9
≥ 30 years	17.5	18.5	19.0	19.3	22.9	22.9	24.0	24.3	26.2	27.5	+57.1
MARITAL STATUS:											
Unmarried	28.3	26.9	27.6	33.5	31.7	33.2	33.7	34.8	37.5	39.1	+38.2
MOTHER'S EDUCATION:											
< 9 years	10.6	10.5	7.9	8.1	8.0	8.1	8.8	7.1	7.4	7.9	-25.5
MOTHER'S ETHNIC GROUP:											
White[1]	63.5	63.2	66.1	62.4	65.2	65.7	63.7	64.7	61.4	59.3	-6.6
Hispanic	25.3	23.7	24.0	24.4	22.6	22.0	23.9	22.3	24.1	25.4	+0.4
Black	7.7	9.1	6.4	9.3	8.5	7.9	8.5	8.3	9.6	10.4	+35.1
Native American	2.7	2.6	2.3	2.5	2.2	2.7	2.2	2.5	2.8	2.9	+7.4
Other	0.9	1.4	1.2	1.3	1.6	1.7	1.7	2.1	2.0	2.0	+122.2
PRENATAL CARE BEGAN:											
1st trimester	68.4	74.7	76.2	75.2	72.9	71.5	68.8	67.8	66.8	62.8	-8.2
3rd trimester	4.2	3.5	3.4	3.1	5.1	3.8	4.5	5.6	5.1	6.0	+42.9
No care	4.5	3.8	4.4	4.7	4.2	3.7	4.2	4.3	5.5	7.2	+60.0
PRENATAL VISITS:											
1-4	11.0	9.1	9.2	8.5	9.8	9.5	12.0	11.7	11.7	11.5	+4.5
≥ 5	76.3	81.9	84.2	84.5	84.5	84.5	79.1	80.4	79.2	76.9	+0.8
≥ 9	48.6	55.6	59.2	61.1	62.6	61.1	55.8	57.7	55.2	54.5	+12.1
≥ 13	14.1	15.5	17.7	17.5	22.3	20.9	21.9	22.6	23.2	22.8	+61.7
MEDICAL RISKS/ COMPLICATIONS:[2]	53.9	55.9	55.6	56.6	57.7	59.0	62.7	70.5	73.7	67.4	+25.0
GESTATIONAL AGE:[3]											
< 38 weeks	55.3	57.3	55.1	57.2	57.1	59.3	68.7	66.8	65.3	74.2	+34.2
BIRTH WEIGHT:											
≤ 1,500 grams	15.4	15.9	14.5	16.3	16.5	17.0	18.3	18.3	16.7	16.8	+9.1
≤ 1,000 grams	7.5	7.5	6.9	7.1	7.7	8.4	8.5	9.3	8.6	8.9	+18.7
CHILD'S SEX:											
Male	47.2	46.2	46.7	49.3	45.2	47.6	48.1	47.1	47.9	46.8	-0.8
Female	52.8	53.8	53.3	50.7	54.8	52.4	51.9	52.8	52.1	53.2	+0.8
PLURALITY:											
Multiple births	15.8	16.6	13.6	16.3	15.2	16.0	17.0	18.0	17.9	17.7	+12.0
CAESAREAN DELIVERY:	21.5	21.8	24.9	26.5	28.4	30.1	31.8	33.0	30.8	31.7	+47.4
PLACE OF DELIVERY:											
Hospital[4]	99.8	98.7	98.8	99.3	99.3	99.6	98.9	98.6	98.4	99.0	-0.8
ATTENDANT AT BIRTH:											
Midwife[5]	2.5	3.3	2.3	2.6	1.9	1.8	1.3	1.5	2.1	1.8	-28.0
PREVIOUS LIVE BIRTHS:											
1 or more	54.0	55.8	54.8	55.3	57.8	56.6	56.2	58.3	58.8	59.2	+9.6

1 Non-Hispanic

2 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.

3 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

4 Hospital, clinic, medical center or maternity home.

5 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-9

LOW-BIRTHWEIGHT BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (RURAL REGIONS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF LBW BIRTHS:	902	890	910	917	888	967	946	1,000	1,048	1,111	+23.2
					PERCENT OF LOW-BIRTHWEIGHT BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	20.0	22.2	18.7	20.6	19.3	17.2	18.6	22.3	19.9	19.1	-4.5
≥ 30 years	19.2	18.8	19.7	18.9	20.2	24.3	25.4	22.8	26.3	27.7	+44.3
MARITAL STATUS:											
Unmarried	27.7	30.1	28.0	34.6	35.5	33.1	34.9	37.6	38.4	41.1	+48.4
MOTHER'S EDUCATION:											
< 9 years	9.6	10.2	9.3	8.9	8.0	10.5	9.6	8.6	10.0	7.8	-18.8
MOTHER'S ETHNIC GROUP:											
White[1]	50.8	51.5	50.7	51.4	52.1	50.9	49.2	50.4	45.9	49.1	-3.3
Hispanic	21.1	19.0	21.0	19.6	20.0	20.0	20.9	19.4	25.7	22.1	+4.7
Black	2.4	3.1	3.3	4.0	2.7	3.1	3.7	3.8	4.0	2.5	+4.2
Native American	24.5	25.6	24.5	24.3	24.1	25.0	25.5	25.9	23.8	24.5	0.0
Other	1.2	0.8	0.5	0.7	1.0	1.0	0.7	0.5	0.7	1.8	+50.0
PRENATAL CARE BEGAN:											
1st trimester	55.3	56.0	61.8	61.8	59.5	58.5	58.0	55.1	52.5	49.8	-9.9
3rd trimester	9.0	7.4	7.0	6.7	8.6	8.0	7.0	8.1	9.7	11.0	+22.2
No care	5.9	9.3	8.0	7.3	5.7	6.0	5.9	6.0	8.9	8.6	+45.8
PRENATAL VISITS:											
1-4	18.1	16.0	15.5	14.6	15.7	14.1	15.9	14.9	16.3	15.0	-17.1
≥ 5	72.2	71.2	72.9	73.6	74.5	75.0	74.2	74.6	71.8	73.2	+1.4
≥ 9	37.3	39.4	42.4	44.2	47.9	46.6	44.6	49.5	47.2	44.8	+20.1
≥ 13	12.4	9.6	11.0	12.6	16.0	13.1	15.8	17.8	15.9	14.7	+18.5
MEDICAL RISKS/ COMPLICATIONS:[2]	63.6	60.4	63.8	65.0	58.6	62.2	68.6	69.0	67.5	71.6	+12.6
GESTATIONAL AGE:[3]											
< 38 weeks	50.7	50.1	50.2	52.5	57.0	54.3	65.3	68.2	62.0	69.8	+37.7
BIRTH WEIGHT:											
≤ 1,500 grams	13.0	13.3	12.2	15.3	13.1	14.9	17.0	16.5	16.1	13.7	+5.4
≤ 1,000 grams	6.3	5.3	5.8	5.9	5.9	6.0	7.5	7.0	6.7	7.6	+20.6
CHILD'S SEX:											
Male	48.9	48.2	44.3	47.3	46.5	48.5	49.9	49.0	47.7	49.6	+1.4
Female	51.1	51.8	55.7	52.7	53.5	51.5	50.1	51.0	52.3	50.4	-1.4
PLURALITY:											
Multiple births	14.3	11.6	13.0	16.6	11.9	14.9	15.0	15.9	15.6	13.1	-8.4
CAESAREAN DELIVERY:	18.7	20.2	25.6	24.8	27.1	27.7	30.7	31.1	25.0	27.5	+47.1
PLACE OF DELIVERY:											
Hospital[4]	95.2	98.5	98.1	98.8	99.2	99.2	93.6	94.2	94.4	98.6	+3.3
ATTENDANT AT BIRTH:											
Midwife[5]	4.9	4.6	3.2	2.0	3.4	5.4	5.3	5.1	5.2	5.7	+16.3
PREVIOUS LIVE BIRTHS:											
1 or more	57.4	57.3	62.2	58.3	59.0	63.8	64.8	63.3	61.4	60.0	+4.5

1 Non-Hispanic
2 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.
3 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."
4 Hospital, clinic, medical center or maternity home.
5 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-10

LIVE BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (WHITE NON-HISPANIC MOTHERS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF BIRTHS:	31,957	32,495	33,419	33,664	35,183	37,972	38,044	39,616	39,821	39,484	+23.6
					PERCENT OF LIVE BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	13.3	12.7	12.2	11.5	10.5	10.6	10.4	10.7	10.5	10.4	-21.8
≥ 30 years	19.5	20.6	21.3	22.7	23.9	24.5	25.8	26.9	28.2	29.8	+52.8
MARITAL STATUS:											
Unmarried	10.5	11.1	11.9	12.7	13.7	14.9	15.9	17.1	18.4	20.1	+91.4
MOTHER'S EDUCATION:											
< 9 years	2.3	2.1	2.0	1.9	1.9	2.0	1.9	1.8	1.8	3.3	+43.5
PRENATAL CARE BEGAN:											
1st trimester	75.5	78.7	79.0	78.3	77.7	76.9	77.2	76.0	74.7	74.0	-2.0
3rd trimester	4.0	3.3	3.3	3.4	4.1	4.0	4.3	4.8	4.8	5.4	+35.0
No care	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.4	1.7	+70.0
PRENATAL VISITS:											
1-4	3.7	3.3	3.4	3.4	3.8	3.8	4.0	4.0	4.1	4.4	+18.9
≥ 5	92.5	93.1	94.4	94.3	94.3	94.2	93.6	93.6	92.9	91.8	-0.8
≥ 9	75.2	76.9	78.1	78.7	80.2	78.6	78.4	79.3	78.7	77.3	+2.8
≥ 13	26.7	28.2	28.0	30.0	31.6	30.6	33.6	34.1	33.0	32.9	+23.2
MEDICAL RISKS/ COMPLICATIONS:[1]	32.4	35.8	37.1	37.8	39.3	39.7	42.9	49.5	50.4	56.4	+43.2[4]
GESTATIONAL AGE:[2]											
< 38 weeks	10.2	10.3	10.3	10.3	10.3	11.2	11.2	11.3	11.4	12.4	+21.6
BIRTH WEIGHT:											
≤ 2,500 grams	5.8	5.7	5.7	5.6	5.9	6.0	6.0	6.3	5.9	6.1	+5.2
≤ 1,500 grams	0.9	0.8	0.8	0.9	0.9	1.0	1.0	1.1	0.9	1.0	+11.1
CHILD'S SEX:											
Male	51.4	51.5	51.8	51.5	51.4	51.4	51.6	51.3	51.6	51.4	0.0
Female	48.6	48.5	48.2	48.5	48.6	48.6	48.4	48.7	48.4	48.6	0.0
PLURALITY:											
Multiple births	1.8	1.9	1.8	2.0	1.9	1.9	2.0	2.3	2.1	2.2	+22.2
CAESAREAN DELIVERY:	12.8	14.5	15.0	15.2	16.2	17.4	19.2	19.8	18.3	20.3	+58.6
PLACE OF DELIVERY:											
Hospital[3]	99.1	98.2	98.2	98.1	98.3	98.3	97.2	97.3	97.6	98.1	-0.9
ATTENDANT AT BIRTH:											
Midwife[4]	4.2	4.8	4.9	5.2	4.8	4.4	4.2	4.0	4.5	4.5	+7.1
PREVIOUS LIVE BIRTHS:											
1 or more	55.2	55.4	55.8	56.7	57.7	57.7	58.1	58.4	58.5	58.8	+6.5

1 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrrent with pregnancy, and/or complications of labor/delivery.

2 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

3 Hospital, clinic, medical center or maternity home.

4 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-11

LOW-BIRTHWEIGHT BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (WHITE NON-HISPANIC MOTHERS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF LBW BIRTHS:	1,846	1,857	1,892	1,899	2,085	2,294	2,273	2,514	2,362	2,426	+31.4
					PERCENT OF LOW-BIRTHWEIGHT BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	16.7	16.9	14.0	17.0	13.2	13.6	13.3	14.6	12.9	12.8	-23.4
≥ 30 years	19.6	19.3	20.7	20.5	24.1	24.1	26.0	26.2	29.0	31.4	+60.2
MARITAL STATUS:											
Unmarried	16.8	17.3	16.9	22.8	21.7	24.5	22.3	25.7	27.2	28.4	+69.0
MOTHER'S EDUCATION:											
< 9 years	3.6	3.3	2.2	3.4	3.3	3.2	3.6	2.7	3.3	3.3	-8.3
PRENATAL CARE BEGAN:											
1st trimester	71.7	75.8	78.5	74.7	75.0	74.6	72.1	70.4	69.6	66.7	-7.0
3rd trimester	3.7	3.9	3.2	2.7	5.0	3.7	3.7	5.1	5.1	6.0	+62.2
No care	2.8	3.7	2	3.3	2.7	2.8	2.9	2.8	4.6	5.2	+85.7
PRENATAL VISITS:											
1-4	10.0	8.7	8.4	7.7	9.6	7.8	10.3	9.7	9.1	9.4	-6.0
≥ 5	82.0	84.1	86.4	86.9	85.8	86.7	82.7	84.6	83.8	82.2	+0.2
≥ 9	51.9	57.2	59.0	61.0	63.2	63.4	58.9	62.0	61.0	59.4	+14.5
≥ 13	16.3	16.4	17.7	19.7	25.2	23.0	23.9	26.5	26.0	23.7	+45.4
MEDICAL RISKS/ COMPLICATIONS:[1]	58.1	57.8	59.2	59.1	58.0	61.5	65.7	70.7	73.4	68.2	+17.4
GESTATIONAL AGE:[2]											
< 38 weeks	55.3	56.3	55.5	55.7	55.3	59.6	68.7	67.8	65.4	73.2	+23.4
BIRTH WEIGHT:											
≤ 1,500 grams	15.0	14.8	13.8	16.4	14.5	16.7	17.4	17.6	15.3	15.6	+4.0
≤ 1,000 grams	7.6	6.7	6.9	6.7	6.8	7.8	8.3	8.8	7.2	8.1	+6.6
CHILD'S SEX:											
Male	47.8	47.2	46.9	48.8	44.0	48.1	48.1	46.2	47.9	46.7	-2.3
Female	52.2	52.8	53.1	51.2	56.0	51.9	51.9	53.7	52.1	53.3	+2.1
PLURALITY:											
Multiple births	16.7	15.1	15.2	16.7	14.9	16.8	16.8	19.9	19.6	19.4	+16.2
CAESAREAN DELIVERY:	21.2	21.5	25.4	27.3	27.8	31.2	32.5	34.5	30.6	32.5	+53.3
PLACE OF DELIVERY:											
Hospital[3]	99.3	98.8	98.5	99.5	99.2	99.6	98.4	97.8	98.3	98.8	-0.5
ATTENDANT AT BIRTH:											
Midwife[4]	1.5	2.1	1.7	1.7	1.6	1.2	0.9	1.1	1.6	1.5	0.0
PREVIOUS LIVE BIRTHS:											
1 or more	53.9	52.2	54.3	52.9	55.3	55.3	56.0	56.7	57.2	56.8	+5.4

1 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.

2 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

3 Hospital, clinic, medical center or maternity home.

4 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-12

LIVE BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (HISPANIC MOTHERS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF BIRTHS:	11,495	11,896	11,630	11,477	12,067	13,062	14,044	14,402	15,952	17,663	+53.7
					PERCENT OF LIVE BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	22.2	21.1	21.9	20.6	19.8	19.4	20.0	20.0	19.4	19.6	-11.7
≥ 30 years	16.5	17.3	17.9	17.8	17.8	18.8	18.8	18.7	19.3	20.2	+22.4
MARITAL STATUS:											
Unmarried	26.0	26.8	28.8	32.3	34.5	34.7	36.4	38.7	39.4	41.5	+59.6
MOTHER'S EDUCATION:											
< 9 years	25.2	24.5	22.5	21.6	21.5	21.8	21.6	20.6	20.1	21.2	15.9
PRENATAL CARE BEGAN:											
1st trimester	59.2	64.1	65.3	62.4	59.8	59.3	58.8	57.5	52.4	50.5	-14.7
3rd trimester	7.8	6.8	6.8	7.9	9.9	9.1	9.6	10.0	11.6	12.6	61.5
No care	3.2	3.2	3.4	3.9	4.5	4.0	3.6	4.0	5.0	7.1	+121.9
PRENATAL VISITS:											
1-4	9.2	8.2	7.9	9.1	10.3	9.2	10.5	10.6	11.9	11.2	+21.7
≥ 5	79.8	83.6	87.0	85.5	83.8	85.0	83.1	82.4	79.7	77.7	-2.6
≥ 9	55.1	58.4	61.8	62.0	62.2	60.1	57.1	59.5	56.4	54.8	-0.5
≥ 13	16.1	16.6	17.9	16.6	17.9	17.5	19.1	20.3	19.2	20.0	+24.2
MEDICAL RISKS/ COMPLICATIONS:[1]	31.7	32.9	33.2	35.7	36.3	35.5	38.7	47.6	51.1	42.9	+35.3
GESTATIONAL AGE:[2]											
< 38 weeks	13.0	13.4	13.0	13.5	12.8	13.9	13.5	14.0	14.0	12.2	-6.2
BIRTH WEIGHT:											
< 2,500 grams	6.5	5.8	6.1	6.4	6.1	6.1	6.2	6.2	6.3	5.9	-9.2
≤ 1,500 grams	0.9	1.0	0.8	1.0	1.1	1.0	1.1	1.0	1.1	0.9	0.0
CHILD'S SEX:											
Male	51.8	50.8	51.1	51.8	51.3	51.0	49.9	51.1	50.7	51.8	0.0
Female	48.2	49.2	48.9	48.2	48.7	49.0	50.1	48.9	49.3	48.2	0.0
PLURALITY:											
Multiple births	2.1	1.7	1.6	2.1	1.6	1.8	1.9	2.1	1.8	1.8	-14.3
CAESAREAN DELIVERY:	12.7	13.5	13.7	14.1	14.6	14.7	16.6	16.7	15.6	17.1	+34.6
PLACE OF DELIVERY:											
Hospital[3]	99.7	99.3	99.2	99.1	99.2	99.1	98.1	98.0	98.1	98.5	-1.2
ATTENDANT AT BIRTH:											
Midwife[4]	5.5	5.5	5.4	4.9	4.7	5.5	5.1	5.2	5.5	6.3	+14.5
PREVIOUS LIVE BIRTHS:											
1 or more	62.1	62.9	64.7	65.0	65.8	65.4	64.4	64.8	64.7	64.3	+3.5

1 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrrent with pregnancy, and/or complications of labor/delivery.

2 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

3 Hospital, clinic, medical center or maternity home.

4 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-13

LOW-BIRTHWEIGHT BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (HISPANIC MOTHERS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF LBW BIRTHS:	743	693	711	739	740	798	877	887	1,008	1,049	+41.2
					PERCENT OF LOW-BIRTHWEIGHT BIRTHS:						
AGE OF MOTHER:											
< 19 years	27.5	23.8	29.0	28.1	24.5	24.1	25.8	26.3	24.0	23.7	-13.8
≥ 30 years	14.3	17.9	16.2	17.1	17.7	22.4	21.6	17.7	20.9	20.7	-44.8
MARITAL STATUS:											
Unmarried	37.8	33.2	39.7	43.4	45.0	42.6	45.6	44.2	47.2	48.1	+27.2
MOTHER'S EDUCATION:											
< 9 years	25.6	29.1	24.2	21.0	21.4	23.8	23.5	21.1	19.8	18.8	-26.6
PRENATAL CARE BEGAN:											
1st trimester	55.0	63.2	63.2	64.5	62.3	57.9	57.2	55.9	52.2	50.7	-7.8
3rd trimester	8.6	4.8	6.0	5.7	8.2	5.8	7.3	8.9	7.8	9.5	+10.5
No care	7.1	6.9	7.9	8.7	7.8	6.8	7.4	7.7	9.8	10.6	+49.3
PRENATAL VISITS:											
1-4	15.1	12.6	12.8	12.4	12.3	13.8	16.5	16.0	17.9	15.6	+3.3
> 5	67.3	73.9	76.0	76.1	78.0	76.1	71.8	72.0	67.6	69.1	+2.7
≥ 9	37.8	46.6	49.7	52.4	53.4	49.7	44.7	47.3	41.2	44.6	+18.0
≥ 13	10.6	10.8	12.9	11.4	12.6	11.5	14.5	13.5	12.9	18.0	+69.8
MEDICAL RISKS/ COMPLICATIONS:[1]	52.1	56.0	52.6	59.5	55.7	55.0	58.4	66.1	68.6	65.5	+25.7
GESTATIONAL AGE:[2]											
< 38 weeks	54.2	54.7	55.3	57.8	53.5	55.0	68.5	65.3	63.9	72.1	+33.0
BIRTH WEIGHT:											
≤ 1,500 grams	13.9	16.5	13.8	15.4	17.7	15.9	17.7	16.4	17.5	15.5	+11.5
≤ 1,000 grams	6.5	6.6	5.3	6.6	8.0	7.3	8.1	7.4	8.5	8.5	+30.8
CHILD'S SEX:											
Male	48.2	46.8	44.2	48.7	48.8	48.1	48.8	49.0	49.4	49.1	+1.9
Female	51.8	53.2	55.8	51.3	51.2	51.9	51.2	50.8	50.5	50.9	-1.7
PLURALITY:											
Multiple births	16.0	15.0	11.3	18.4	13.1	15.8	18.5	15.7	14.3	13.7	-14.4
CAESAREAN DELIVERY:	19.2	21.6	23.3	24.9	29.6	26.2	30.1	30.1	28.7	30.3	+57.8
PLACE OF DELIVERY:											
Hospital[3]	99.6	99.4	98.9	98.9	99.5	99.5	98.3	99.1	98.6	99.0	-0.6
ATTENDANT AT BIRTH:											
Midwife[4]	3.1	3.0	3.0	2.4	1.2	2.4	1.5	2.4	1.9	1.7	-45.2
PREVIOUS LIVE BIRTHS:											
1 or more	54.2	61.9	59.2	60.8	61.9	61.5	58.7	61.2	59.8	60.2	+11.1

1 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.

2 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

3 Hospital, clinic, medical center or maternity home.

4 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-14

LIVE BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (BLACK MOTHERS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF BIRTHS:	1,634	1,759	1,800	1,820	1,911	1,969	2,157	2,289	2,406	2,528	+54.7
					PERCENT OF LIVE BIRTHS:						
AGE OF MOTHER:											
< 19 years	27.2	26.5	24.6	26.0	23.4	21.9	22.3	22.6	22.9	23.5	-13.6
≥ 30 years	11.1	11.9	12.4	12.9	13.3	15.0	16.6	16.4	17.6	18.3	+64.9
MARITAL STATUS:											
Unmarried	50.9	50.8	52.2	52.4	54.8	54.9	55.0	57.1	57.9	61.3	+20.4
MOTHER'S EDUCATION:											
< 9 years	3.0	2.6	2.1	1.9	2.8	2.8	2.5	2.8	3.1	2.7	-10.0
PRENATAL CARE BEGAN:											
1st trimester	62.7	67.0	69.8	68.3	63.6	63.6	63.8	61.0	57.8	54.7	-12.8
3rd trimester	5.8	5.3	5.8	4.9	6.8	7.9	7.1	8.3	8.0	8.5	+46.6
No care	2.3	2.8	2.4	2.5	2.5	2.9	2.8	2.8	3.3	7.1	+208.7
PRENATAL VISITS:											
1-4	8.0	8.0	8.1	7.0	8.0	8.5	9.2	11.4	11.3	12.1	+51.3
≥ 5	77.4	83.2	87.3	88.1	88.0	86.1	84.0	82.0	80.9	76.3	-1.4
≥ 9	54.8	60.0	67.7	68.0	67.7	63.6	61.4	61.2	59.3	55.1	+0.5
≥ 13	18.1	19.7	24.3	21.8	23.8	21.5	23.4	22.6	24.5	22.0	+21.5
MEDICAL RISKS/ COMPLICATIONS:[1]	33.7	33.4	32.2	35.2	35.8	35.3	41.5	49.6	54.4	52.2	+54.9
GESTATIONAL AGE:[2]											
< 38 weeks	20.1	20.8	17.6	20.7	19.7	20.5	20.0	19.6	20.0	21.2	+5.5
BIRTH WEIGHT:											
< 2,500 grams	11.6	13.0	9.3	13.7	12.3	12.5	12.8	13.0	13.9	14.1	+21.6
≤ 1,500 grams	2.4	2.8	1.7	2.6	2.4	2.4	2.8	3.1	3.2	3.2	+33.3
CHILD'S SEX:											
Male	52.0	51.1	51.1	52.3	50.9	48.6	52.6	50.2	50.3	50.3	-3.3
Female	48.0	48.9	48.9	47.7	49.1	51.4	47.4	49.8	49.7	49.7	+3.5
PLURALITY:											
Multiple births	1.6	3.4	1.5	3.3	2.6	2.0	2.9	1.8	3.4	2.7	+68.8
CAESAREAN DELIVERY:	15.1	15.3	16.4	16.3	18.6	18.4	19.5	20.2	20.2	20.1	+33.1
PLACE OF DELIVERY:											
Hospital[3]	99.4	99.4	99.4	99.2	99.6	99.3	99.0	98.6	98.2	99.1	-0.3
ATTENDANT AT BIRTH:											
Midwife[4]	6.5	8.6	7.4	5.8	5.4	5.2	3.9	5.1	5.2	5.6	-13.8
PREVIOUS LIVE BIRTHS:											
1 or more	58.6	59.5	59.8	60.7	60.1	64.0	63.1	65.8	65.3	63.6	+8.5

1 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.

2 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

3 Hospital, clinic, medical center or maternity home.

4 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-15

LOW-BIRTHWEIGHT BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (BLACK MOTHERS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF LBW BIRTHS:	190	229	168	249	236	247	276	297	335	357	+87.9
					PERCENT OF LOW-BIRTHWEIGHT BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	34.2	28.8	28.0	29.3	24.6	32.0	22.8	23.6	19.1	20.4	-40.4
≥ 30 years	10.0	9.6	13.1	9.2	16.1	13.8	17.8	19.5	18.2	17.9	+79.0
MARITAL STATUS:											
Unmarried	65.8	60.7	57.7	63.5	64.8	60.7	67.8	67.7	64.2	67.5	+2.6
MOTHER'S EDUCATION:											
< 9 years	7.9	3.9	4.8	3.6	2.5	3.6	4.7	3.0	4.5	3.2	-59.5
PRENATAL CARE BEGAN:											
1st trimester	59.5	65.9	66.7	72.7	67.4	61.9	59.1	56.9	64.8	50.4	-15.3
3rd trimester	6.8	2.6	6.5	2.8	4.2	5.7	8.0	6.4	6.0	6.2	-8.8
No care	6.8	4.8	5.4	6.0	5.1	4.9	5.4	5.4	5.7	14.0	+105.9
PRENATAL VISITS:											
1-4	15.3	12.2	14.9	8.4	11.9	14.2	15.6	21.5	17.6	17.1	+11.8
≥ 5	61.6	73.4	77.9	80.4	81.3	78.2	71.3	67.1	70.8	59.9	-2.9
≥ 9	36.3	42.4	55.3	57.1	57.6	50.7	46.7	41.8	45.1	38.9	+7.2
≥ 13	8.4	12.7	21.4	14.5	14.8	13.0	17.4	13.5	19.1	16.5	+96.4
MEDICAL RISKS/ COMPLICATIONS:[1]	44.7	51.1	42.9	45.8	52.1	46.6	62.0	65.3	68.4	67.5	+51.0
GESTATIONAL AGE:[2]											
< 38 weeks	58.4	61.6	51.8	61.8	60.2	57.9	61.2	66.0	63.9	74.8	+28.1
BIRTH WEIGHT:											
≤ 1,500 grams	21.1	21.8	17.9	18.9	19.1	19.4	21.8	23.9	23.3	22.7	+7.6
≤ 1,000 grams	9.5	16.2	10.7	10.8	9.3	10.5	9.1	13.1	15.2	13.2	+38.9
CHILD'S SEX:											
Male	46.3	42.8	45.8	45.8	45.3	45.3	52.9	49.2	41.2	42.9	-7.3
Female	53.7	57.2	54.2	54.2	54.7	54.7	47.1	50.8	58.8	57.1	+6.3
PLURALITY:											
Multiple births	7.4	18.8	9.5	14.9	14.4	12.1	14.5	9.1	17.6	12.0	+62.2
CAESAREAN DELIVERY:	19.5	20.1	18.5	20.5	26.7	22.7	29.3	28.6	23.9	24.1	+23.6
PLACE OF DELIVERY:											
Hospital[3]	99.5	98.3	99.4	99.6	99.6	99.6	97.8	99.0	94.9	98.0	-1.5
ATTENDANT AT BIRTH:											
Midwife[4]	2.1	7.0	0.6	3.2	3.0	2.4	1.8	1.0	2.4	1.7	-19.0
PREVIOUS LIVE BIRTHS:											
1 or more	57.4	60.7	60.7	58.2	60.6	65.6	67.4	66.3	68.1	65.5	+14.1

[1] For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.

[2] Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

[3] Hospital, clinic, medical center or maternity home.

[4] Licensed Midwife or Certified Nurse Midwife.

TABLE 1-16

LIVE BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (NATIVE AMERICAN MOTHERS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF BIRTHS:	4,796	4,878	5,137	5,297	5,265	5,478	5,718	6,036	6,240	6,338	+32.2
					PERCENT OF LIVE BIRTHS:						
AGE OF MOTHER:											
< 19 years	22.5	22.8	21.9	20.4	19.8	18.3	19.0	18.2	18.3	17.9	-20.4
≥ 30 years	19.6	19.8	19.4	19.4	20.7	22.5	21.9	23.3	23.3	23.4	+19.4
MARITAL STATUS:											
Unmarried	46.1	47.1	48.5	51.2	52.0	51.9	55.2	56.1	57.1	57.8	+25.4
MOTHER'S EDUCATION:											
< 9 years	11.3	10.9	10.1	9.1	8.9	8.1	8.0	7.8	7.0	6.7	-40.7
PRENATAL CARE BEGAN:											
1st trimester	49.0	54.0	57.1	53.0	48.7	50.1	52.7	50.4	49.5	46.8	-4.5
3rd trimester	11.9	10.1	9.0	11.1	11.2	10.1	10.0	10.7	11.5	14.0	+17.6
No care	6.6	5.4	5.5	5.0	4.2	3.5	3.2	4.1	3.8	4.4	-33.3
PRENATAL VISITS:											
1-4	17.9	15.4	14.7	13.4	13.9	12.5	12.8	12.5	13.5	14.1	-21.2
≥ 5	73.5	77.3	78.0	78.5	78.1	80.0	79.7	80.4	79.4	78.4	+6.7
≥ 9	43.2	46.5	49.3	51.2	50.3	52.9	53.0	55.4	54.2	50.4	+16.7
≥ 13	12.3	13.3	15.0	15.6	15.6	17.8	19.3	20.7	20.0	18.1	+47.2
MEDICAL RISKS/ COMPLICATIONS:[1]	49.4	48.6	48.9	52.4	51.5	57.1	57.0	60.7	64.8	57.0	+15.4
GESTATIONAL AGE:[2]											
< 38 weeks	14.5	13.9	12.6	13.1	15.1	15.4	16.0	15.0	16.2	12.1	-16.6
BIRTH WEIGHT:											
≤ 2,500 grams	5.8	5.9	5.3	5.3	5.1	5.8	5.3	5.6	5.4	5.7	-1.7
≤ 1,500 grams	0.7	0.6	0.6	0.7	0.7	0.9	1.0	1.1	0.8	0.8	+14.3
CHILD'S SEX:											
Male	50.8	49.4	50.1	51.9	50.6	49.4	49.7	50.4	50.6	49.9	-1.8
Female	49.2	50.6	49.9	48.1	49.4	50.6	50.3	49.6	49.4	50.1	+1.8
PLURALITY:											
Multiple births	1.7	1.5	0.8	1.3	1.2	1.3	1.2	1.3	1.5	1.4	-17.6
CAESAREAN DELIVERY:	11.7	11.5	12.3	12.7	13.2	12.6	13.9	12.0	10.8	12.1	+3.4
PLACE OF DELIVERY:											
Hospital[3]	99.5	99.3	99.4	99.3	99.3	99.7	90.7	91.4	92.0	99.3	-0.2
ATTENDANT AT BIRTH:											
Midwife[4]	23.2	19.8	18.6	17.9	20.4	27.7	28.3	31.7	30.1	34.2	+47.4
PREVIOUS LIVE BIRTHS:											
1 or more	67.5	67.3	67.3	67.6	68.5	69.5	68.6	71.7	70.7	73.6	+9.0

1 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.

2 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

3 Hospital, clinic, medical center or maternity home.

4 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-17

LOW-BIRTHWEIGHT BIRTHS ACCORDING TO SELECTED MATERNAL, PRENATAL CARE AND DELIVERY CHARACTERISTICS, BIRTHWEIGHT, PLURALITY, CHILD'S SEX, BIRTH ORDER AND BIRTH COMPLICATIONS, ARIZONA, 1980-1989 (NATIVE AMERICAN MOTHERS)

Characteristic:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
NUMBER OF LBW BIRTHS:	280	286	273	281	268	316	303	338	336	363	+29.6
					PERCENT OF LOW-BIRTHWEIGHT BIRTHS:						
AGE OF MOTHER:											
≤ 19 years	21.1	28.7	19.4	21.4	18.7	17.4	17.8	20.4	20.8	22.3	+5.7
≥ 30 years	22.5	19.9	19.0	21.0	20.9	25.3	23.8	24.9	27.7	29.2	+29.8
MARITAL STATUS:											
Unmarried	53.2	58.4	54.6	58.4	60.1	55.1	59.1	63.0	61.0	66.1	+24.2
MOTHER'S EDUCATION:											
< 9 years	14.3	17.1	11.4	12.1	10.8	14.2	11.6	11.5	10.4	9.8	-31.5
PRENATAL CARE BEGAN:											
1st trimester	46.8	45.1	53.1	52.3	46.3	50.0	53.5	49.4	47.6	43.8	-6.4
3rd trimester	9.3	10.1	7.3	9.6	9.0	10.8	8.6	8.0	11.3	10.2	+9.7
No care	11.1	14.0	16.8	11.0	10.1	8.2	8.9	11.5	9.2	9.9	-10.8
PRENATAL VISITS:											
1-4	27.1	22.0	21.6	22.4	20.9	20.6	20.5	16.6	21.1	19.8	-26.9
≥ 5	58.6	60.5	58.2	61.5	64.2	65.5	65.0	66.5	66.7	66.9	+14.2
≥ 9	28.2	28.2	33.7	34.1	40.3	36.7	39.3	41.1	43.2	35.8	+27.0
≥ 13	8.2	4.2	6.2	5.3	14.9	11.7	14.2	13.0	16.4	13.2	+61.0
MEDICAL RISKS/ COMPLICATIONS:[1]	68.9	62.2	73.3	68.7	67.9	72.5	73.9	79.6	78.9	79.3	+15.1
GESTATIONAL AGE:[2]											
< 38 weeks	42.9	45.5	39.9	46.3	56.7	53.5	67.7	66.9	61.6	74.4	+73.4
BIRTH WEIGHT:											
≤ 1,500 grams	11.8	9.8	11.7	13.9	14.6	15.2	19.5	19.0	15.8	14.3	+21.2
≤ 1,000 grams	5.4	2.1	5.5	4.6	5.6	7.0	8.3	9.2	6.0	7.4	+37.0
CHILD'S SEX:											
Male	47.1	49.3	45.8	52.0	48.9	47.2	46.5	51.8	51.2	49.9	+5.9
Female	52.9	50.7	54.2	48.0	51.1	52.8	53.5	48.2	48.8	50.1	-5.3
PLURALITY:											
Multiple births	11.4	12.9	8.8	9.6	11.9	12.0	11.2	11.5	11.6	11.0	-3.5
CAESAREAN DELIVERY:	22.5	19.6	32.2	27.4	26.5	30.7	31.4	28.7	28.0	27.3	+21.3
PLACE OF DELIVERY:											
Hospital[3]	88.9	96.9	98.5	96.8	98.9	98.4	88.8	90.5	90.2	98.6	+10.9
ATTENDANT AT BIRTH:											
Midwife[4]	15.7	12.6	8.4	6.8	9.7	14.9	15.8	13.9	15.2	16.0	+1.9
PREVIOUS LIVE BIRTHS:											
1 or more	64.6	66.1	66.7	64.1	66.0	70.6	65.7	70.1	68.8	68.9	+6.7

1 For 1989 these are reported medical risks for this pregnancy and/or complications of labor and delivery. For 1980-1988 data reported as complications of pregnancy, illnesses concurrent with pregnancy, and/or complications of labor/delivery.

2 Gestational age is physician's estimate for 1980-1985 and 1989. From 1986 to 1988 data on gestational age were computed from information on "date of birth" and "date of last normal menses."

3 Hospital, clinic, medical center or maternity home.

4 Licensed Midwife or Certified Nurse Midwife.

TABLE 1-18

SELECTED CHARACTERISTICS OF LIVE BIRTHS AND WOMEN GIVING BIRTH BY REGION AND ETHNICITY, ARIZONA, 1989[a]

	MOTHER'S RESIDENCE			MOTHER'S ETHNIC GROUP			
	Arizona, Total	Urban Region	Rural Region	White	Hispanic	Black	Native American
TOTAL BIRTHS:	67,128	50,436	16,692	39,484	17,663	2,528	6,338
Paying Party:							
Private Insurance	33,985	28,114	5,871	25,572	6,240	932	516
AHCCCS[b]	17,790	13,136	4,654	7,429	7,617	1,261	1,315
IHS[c]	3,998	835	3,163	162	80	18	3,733
Self	8,107	6,198	1,909	4,532	3,027	207	195
Unknown	3,248	2,153	1,095	1,789	699	110	579
Medical Risk Factors:							
# births with risk factors reported	14,022	9,872	4,150	7,774	3,196	644	2,213
# medical risk factors reported[d]	16,232	11,273	4,959	8,877	3,641	755	2,741
Anemia	1,302	774	528	495	358	87	339
Cardiac Disease	174	124	50	109	33	5	26
Acute or Chronic Lung Disease	164	103	61	94	27	23	20
Diabetes	1,343	894	449	631	337	30	318
Genital Herpes	678	579	99	552	70	24	26
Hypertension (pregnancy related)	1,852	1,233	619	1,025	386	84	338
Chronic Hypertension	430	243	187	224	84	27	92
Previous Infant 4,000 g or more	532	319	213	286	120	7	117
Previous SGA[e] or Preterm Infant	545	330	215	311	91	30	104
RH Sensitization	337	174	163	286	32	3	13
Uterine Bleeding	358	253	105	242	70	11	29
Other	8,517	6,247	2,270	4,622	2,033	424	1,319
Other Risk Factors:							
Tobacco use during pregnancy	10,214	8,038	2,176	8,090	1,312	502	242
Alcohol use during pregnancy	2,625	1,998	627	1,752	442	162	251
Both	1,293	987	306	882	209	106	85
Weight Gained During Pregnancy:							
None	426	300	126	209	125	21	61
1-10 pounds	1,862	1,194	668	761	554	95	430
11-20 pounds	9,329	6,386	2,943	4,719	2,754	396	1,300
21 or more pounds	47,083	36,100	10,983	30,498	10,909	1,555	3,370
Obstetric Procedures:[f]							
None	9,524	7,044	2,009	4,401	3,227	392	902
Amniocentesis	1,931	1,623	308	1,344	359	64	125
Electronic Fetal Monitoring	44,370	32,286	12,084	25,982	11,298	1,665	4,682
Induction of Labor	6,932	5,238	1,694	4,777	1,309	173	589
Stimulation of Labor	7,132	5,588	1,544	4,298	1,681	303	748
Tocolysis	1,440	1,183	257	940	313	80	81
Ultrasound	39,077	29,987	9,090	25,064	8,738	1,504	3,115
Other	6,152	5,615	537	3,707	1,754	265	339
Method of Delivery:[g]							
Vaginal	51,272	38,036	13,236	29,529	13,798	1,888	5,232
Vaginal After Previous C-Section	1,526	1,102	454	863	349	69	256
Primary Caesarean Section	7,921	6,251	1,670	5,128	1,859	307	466
Repeat Caesarean Section	4,557	3,503	1,054	2,851	1,144	200	291
Forceps	2,858	2,321	537	1,926	671	90	98
Vacuum	2,503	1,845	658	1,493	808	72	64
Complications of Labor and/or Delivery:							
# births with complications	23,191	17,786	5,407	13,716	5,720	971	2,376

a Many of these characteristics were reported for the first time in 1989 on a new birth certificate. Unknowns for any characteristic are included in total.
b The Arizona Health Care Cost Containment System is the state's alternative to Medicaid.
c Indian Health Services.
d Will not add to total births since more than one medical risk factor might be reported.
e Small for Gestational Age.
f Will not add to total births since more than one method of delivery might be required.
g Will not add to total births since more than one method of delivery might be required.

(continued)

TABLE 1-18 (continued)

SELECTED CHARACTERISTICS OF LIVE BIRTHS AND WOMEN GIVING BIRTH BY REGION AND ETHNICITY, ARIZONA, 1989

	MOTHER'S RESIDENCE			MOTHER'S ETHNIC GROUP			
	Arizona, Total	Urban Region	Rural Region	White	Hispanic	Black	Native American
TOTAL BIRTHS:	67,128	50,436	16,692	39,484	17,663	2,528	6,338
# complications reported[h]	29,655	22,628	7,027	17,310	7,422	1,283	3,132
Febrile (100F. or 38 C.)	666	536	130	325	205	31	91
Meconium, Moderate/Heavy	4,384	3,418	966	2,207	1,332	224	553
Premature Rupture of Membrane	2,137	1,510	627	1,190	490	101	324
Abruptio Placenta	398	282	116	237	94	17	47
Placenta Previa	193	119	74	113	48	8	18
Other Excessive Bleeding	490	267	223	218	91	17	155
Seizures During Labor	30	23	7	16	9	3	2
Precipitous Labor (< 3 Hours)	1,026	645	381	602	221	43	142
Prolonged Labor (> 20 Hours)	700	368	332	377	150	18	139
Dysfunctional Labor	1,073	640	433	584	236	36	193
Breech/Malpresentation	2,486	1,851	635	1,566	585	91	196
Cephalopelvic Disproportion	2,021	1,660	361	1,279	499	82	106
Cord Prolapse	142	101	41	94	24	4	17
Anesthetic Complications	38	28	10	29	3	0	5
Fetal Distress	2,406	1,751	655	1,474	572	117	207
Other	11,465	9,429	2,036	6,999	2,863	491	937
Abnormal conditions of the Newborn:							
# births with abnormal conditions	4,885	3,680	1,205	2,838	1,256	253	472
# abnormal conditions reported[i]	5,614	4,151	1,463	3,284	1,429	282	543
Anemia	197	141	56	116	48	7	24
Birth Injury	80	47	33	53	18	0	6
Fetal Alcohol Syndrome	26	12	14	6	2	1	17
Assisted Ventilation	1,098	720	378	694	235	33	118
Hyaline Membrane Disease/Rds.	255	161	94	168	55	14	14
Meconium Aspiration Syndrome	204	131	73	95	67	9	30
Seizures	53	39	14	37	8	0	8
Other	3,701	2,900	801	2,115	996	218	326
Congenital Anomalies:							
# Births with congenital anomalies	1,328	979	349	751	351	71	135
# congenital anomalies reported[j]	1,445	1,063	382	825	378	77	144
Newborn Intensive Care, Total:	2,576	2,061	515	1,553	629	173	176
Infant ≤ 2,500 grams	1,426	1,101	325	810	348	128	114
Infant > 2,500 grams	1,122	960	190	743	281	45	62
No prenatal visits	184	144	40	63	64	35	20
1-4 prenatal visits	278	203	75	128	85	29	32
5 or more prenatal visits	2,026	1,639	387	1,318	455	97	119
Gestational age < 38 weeks:	1,665	1,301	364	1,007	382	131	118
Infant ≤ 2,500 grams	1,331	1,027	304	763	321	117	108
Infant > 2,500 grams	334	274	60	244	61	14	10
Gestational age ≥ 38 weeks:	894	747	147	542	240	39	56
Infant ≤ 2,500 grams	84	65	19	46	22	8	6
Infant > 2,500 grams	810	682	128	496	218	31	51

[h] Will not add to total births since more than one complication might be reported.
[i] Will not add to total births since more than one abnormal condition might be reported.
[j] Will not add to total births since more than one congenital anomaly might be reported.

TABLE 1-19

PAYEE FOR THE DELIVERY AND SELECTED CHARACTERISTICS OF NEWBORNS AND WOMEN GIVING BIRTH, ARIZONA, 1989

Characteristics[a]	PAYING PARTY FOR THE DELIVERY: Total	AHCCCS[b]	IHS[c]	Private Insurance	Self	Unknown
Number of births:	67,128	17,790	3,998	33,985	8,107	3,248
Maternal Age:						
Under 15	159	72	16	39	22	10
15-19	9,216	4,517	677	2,350	1,208	464
20-24	19,501	6,693	1,272	7,879	2,689	968
25-29	20,450	3,962	1,082	12,158	2,323	925
30-34	12,760	1,847	644	8,379	1,320	570
35-39	4,266	593	253	2,759	454	207
40+	716	102	53	416	90	55
Marital Status:						
Married	46,250	7,154	1,771	29,556	5,739	2,030
Single	20,612	10,628	2,226	4,413	2,365	980
Maternal Education:						
0-8 years	5,642	2,527	255	1,385	1,213	262
9-12 years	37,688	12,700	2,839	15,682	4,637	1,830
13+ years	21,100	1,887	731	15,509	2,033	940
Prenatal Care Began:						
1st trimester	43,272	7,466	1,869	27,512	4,538	1,887
2nd trimester	14,859	6,037	1,385	4,804	1,926	707
3rd trimester	5,527	2,831	533	1,155	671	337
No care	2,439	960	160	257	827	235
Unknown	1,031	496	51	257	145	82
Prenatal Visits:						
None	2,457	970	161	265	824	237
1-4 visits	4,937	2,529	563	921	631	293
$\geq$ 5 visits	57,900	13,512	3,183	32,309	5,327	2,569
$\geq$ 9 visits	45,598	8,723	2,066	28,168	4,881	1,760
$\geq$ 13 visits	18,506	2,785	780	12,394	1,900	647
Medical Risk Factors:						
# births with risk factors	14,022	4,307	1,478	6,242	1,316	679
# medical risk factors reported[d]	16,232	5,016	1,834	7,135	1,469	778
Anemia	1,302	518	247	361	111	65
Cardiac Disease	174	51	18	76	19	10
Acute or Chronic Lung Disease	164	72	11	61	12	8
Diabetes	1,343	348	194	654	98	49
Genital Herpes	678	129	16	451	57	25
Hypertension (pregnancy related)	1,852	438	223	927	148	116
Chronic Hypertension	430	107	46	213	41	23
Previous Infant 4,000 g or more	532	127	92	205	75	33
Previous SGA or Preterm Infant	545	154	80	213	57	41
RH Sensitization	337	83	8	195	44	7
Uterine Bleeding	358	83	22	189	41	23
Other	8,517	2,906	877	3,590	766	378
Other Risk Factors:						
Tobacco use during pregnancy	10,214	4,440	114	3,918	1,410	332
Alcohol use during pregnancy	2,625	882	137	1,229	284	93
Both	1,293	602	41	429	167	54
Weight Gained During Pregnancy:						
None	426	153	34	173	48	18
1-10 pounds	1,862	650	262	669	209	72
11-20 pounds	9,329	2,561	911	4,389	1,123	345
21 pounds	47,083	11,106	2,121	26,483	5,449	1,924
Obstetric Procedures:						
None	9,524	2,992	470	3,114	1,980	968
Amniocentesis	1,931	321	71	1,340	131	68
Electronic Fetal Monitoring	44,370	11,883	3,142	23,170	4,381	1,794
Induction of Labor	6,932	1,577	359	4,151	542	303
Stimulation of Labor	7,132	1,917	474	3,857	620	264
Tocolysis	1,440	328	44	909	87	72
Ultrasound	39,077	9,178	2,015	22,986	3,701	1,197
Other	6,152	2,113	214	3,014	608	203

[a] Unknowns for any characteristic are included in total births unless specified otherwise.
[b] The Arizona Health Care Cost Containment System is the state's alternative to Medicaid.
[c] Indian Health Services.
[d] Will not add to total births since more than one medical risk factor might be reported.

(continued)

TABLE 1-19 (continued)

PAYEE FOR THE DELIVERY AND SELECTED CHARACTERISTICS OF NEWBORNS AND WOMEN GIVING BIRTH, ARIZONA, 1989

Characteristics	Total	PAYING PARTY FOR THE DELIVERY: AHCCCS	IHS	Private Insurance	Self	Unknown
Method of Delivery:[e]						
Vaginal	51,272	13,983	3,384	24,841	6,645	2,419
Vaginal After Previous Caesarean Section	1,526	389	180	752	162	73
Primary Caesarean Section	7,921	1,899	262	4,272	707	311
Repeat Caesarean Section	4,557	1,158	158	2,765	326	150
Forceps	2,858	678	38	1,690	344	108
Vacuum2,503	724	23	1,319	335	102	
Complications of Labor and/or Delivery:						
# birth with complications	23,191	6,591	1,527	11,902	2,334	904
# complications reported[f]	29,655	8,572	2,0[illegible]	14,988	2,893	1,171
Febrile (100 F. or 38 C.)	666	210		285	66	36
Meconium (Moderate/Heavy)	4,384	1,430	36[illegible]	1,928	498	165
Premature Rupture of Membrane	2,137	575	232	973	235	122
Abruptio Placenta	398	115	39	176	47	21
Placenta Previa	193	52	11	103	24	3
Other Excessive Bleeding	490	107	111	190	42	40
Seizures During Labor	30	12	1	11	1	5
Precipitous Labor (< 3 Hours)	1,026	328	88	430	124	56
Prolonged Labor (> 20 Hours)	700	197	105	291	72	35
Dysfunctional Labor	1,073	307	148	479	84	55
Breech/Malpresentation	2,486	662	126	1,369	230	99
Cephalopelvic Disproportion	2,021	458	55	1,259	183	66
Cord Prolapse	142	41	3	80	11	7
Anesthetic Complications	38	2	4	24	6	2
Fetal Distress	2,406	694	131	1,244	224	113
Other	11,465	3,382	545	6,146	1,046	346
Abnormal Conditions of the Newborn:						
# births with abnormal conditions	4,885	1,856	264	2,070	458	237
# abnormal conditions reported[g]	5,614	2,108	298	2,392	543	273
Anemia	197	63	12	94	14	14
Birth Injury	80	21	4	44	8	3
Fetal Alcohol Syndrome	26	8	10	6	1	1
Assisted Ventilation	1,098	360	57	496	127	58
Hyaline Membrane Disease/Rds.	255	86	6	120	23	20
Meconium Aspiration Syndrome	204	76	19	64	30	15
Seizures	53	16	3	21	8	5
Other	3,701	1,478	187	1,547	332	157
Congenital Anomalies:						
# birth with congenital anomalies	1,328	460	76	560	138	94
# congenital anomalies reported[h]	1,445	500	81	620	148	96
Gestational Age:						
20-37 weeks	8,488	2,486	447	4,130	1,011	414
38-42 weeks	57,856	15,064	3,523	29,720	6,921	2,628
43+ weeks	260	87	15	87	60	11
Low-Birthweight Births, total	4,279	1,385	204	1,965	487	238
Infant ≤ 1,500 grams (VLBW)	681	219	20	328	75	41
Infant 1,501-2,500 grams	3,598	1,166	184	1,637	412	197
No prenatal visits	327	146	19	35	91	36
1-4 visits	532	265	39	123	68	37
5 or more prenatal visits	3,284	905	139	1,758	300	146
Newborn Intensive Care, total	2,576	771	88	1,320	265	132
After no prenatal visits	184	82	12	27	45	18
After 1-4 prenatal visits	278	141	18	69	33	17
After 5 or more visits	2,026	505	56	1,201	174	90
Infant ≤ 2,500 grams	1,426	438	57	698	156	77
Infant > 2,500 grams	1,122	333	31	622	109	55
Gestational age < 38 weeks	1,665	495	57	862	165	86
Infant ≤ 2,500 grams	1,331	408	53	662	138	70
Infant > 2,500 grams	334	87	4	200	27	16
Gestational age > 38 weeks	899	270	31	458	96	44
Infant ≤ 2,500 grams	84	26	4	33	16	5
Infant > 2,500 grams	810	244	27	420	80	39

[e] Will not add total births since more than one method of delivery might be required.
[f] Will not add to total births since more than one complication might be reported.
[g] Will not add to total births since more than one abnormal condition might be reported.
[h] Will not add to total births since more than congenital anomaly might be reported.
Compare Table 7-34 and Table 7-35 in the Vital Statistics Section.

FIGURE 1.
FERTILITY RATES BY YEAR, ARIZONA AND UNITED STATES, 1980 - 1989

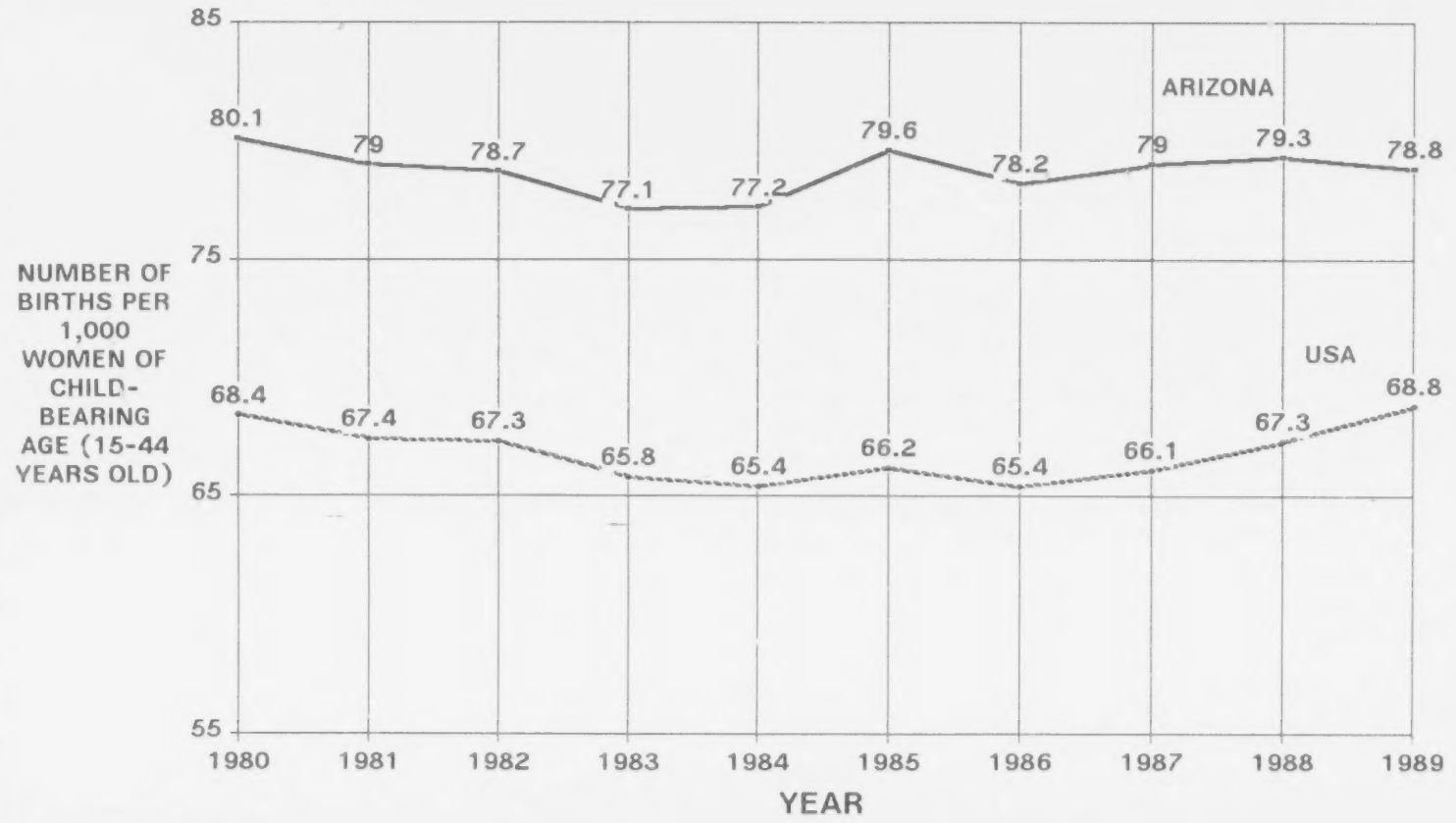


FIGURE 2.
PRECENT PREGNANT WOMEN WITH NO PRENATAL CARE DURING THE FIRST TRIMESTER, ARIZONA AND UNITED STATES, 1980 - 1989 AND NATIONAL HEALTH OBJECTIVES FOR YEAR 1990 AND YEAR 2000

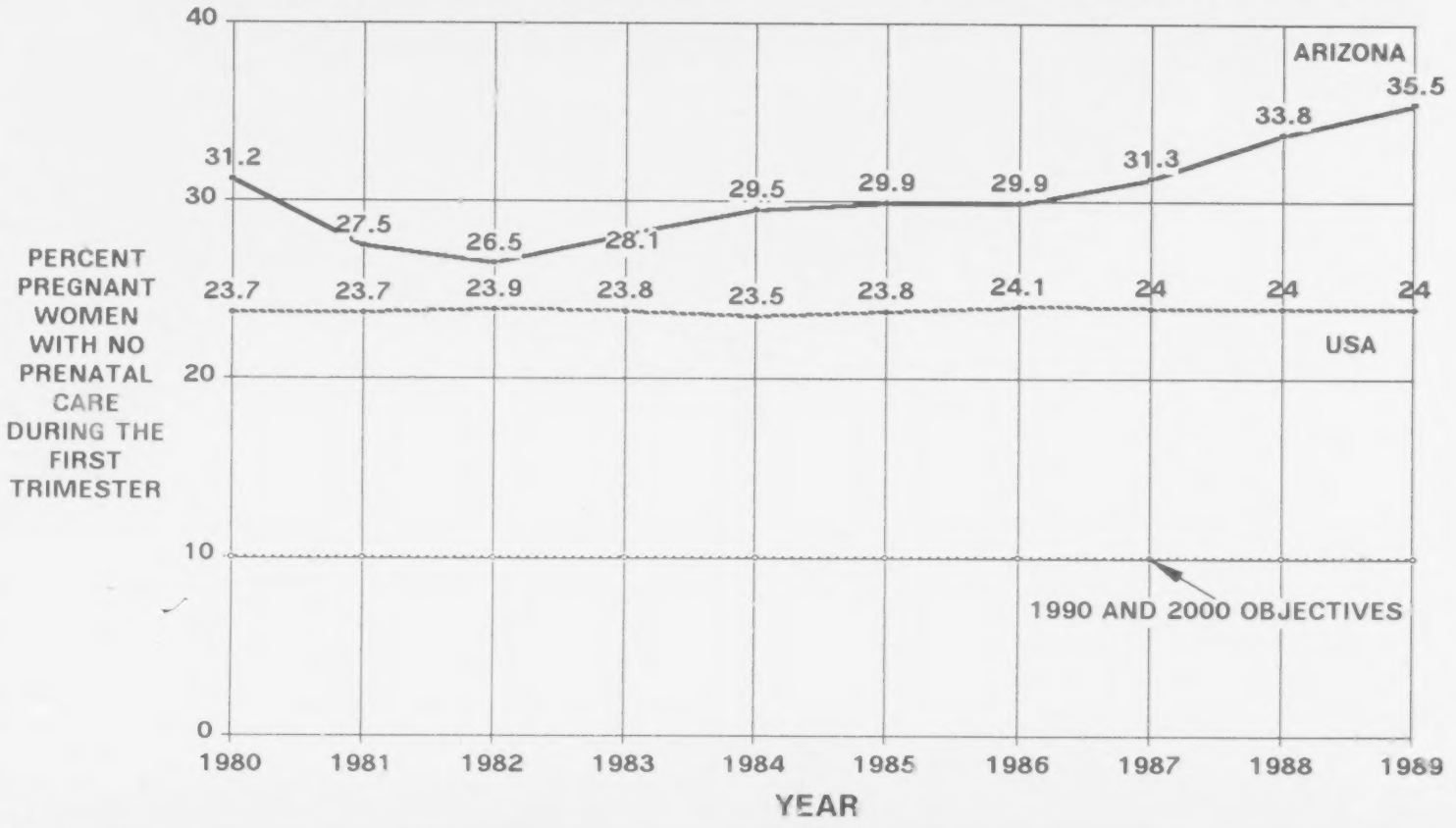
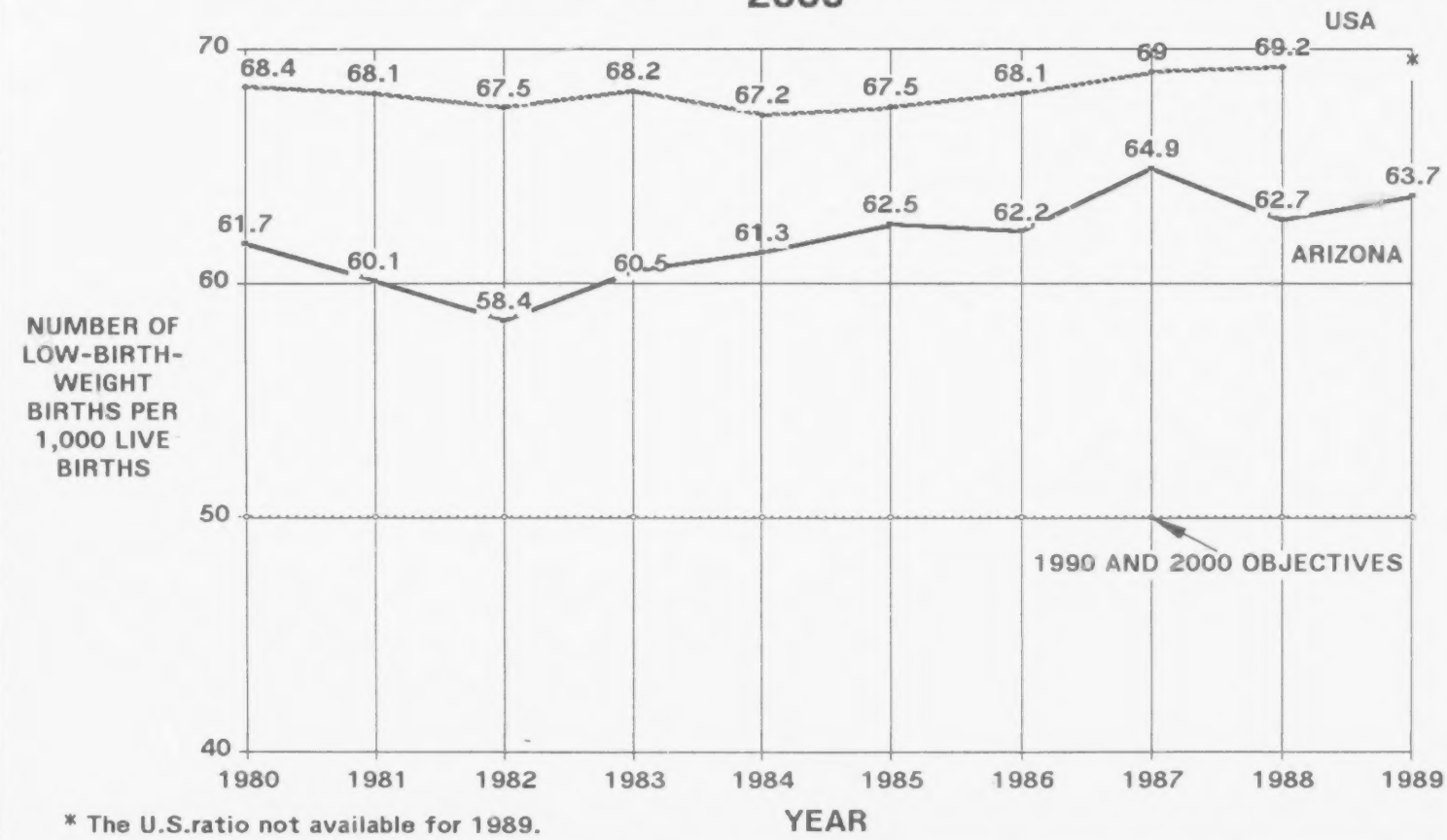


FIGURE 3.
LOW-BIRTHWEIGHT BIRTH RATIOS, ARIZONA AND UNITED STATES, 1980 - 1989 AND NATIONAL HEALTH OBJECTIVES FOR YEAR 1990 AND YEAR 2000



* The U.S.ratio not available for 1989.

TOTAL MORTALITY

The number of Arizona residents who died totaled 27,838 in 1989, 327 more than in 1988. Age-adjustment of death rates controls for differences in the age composition of populations between time periods or between regions, genders or other relevant demographic variables. The adjustment process makes age-adjusted mortality rates better indicators than crude death rates of temporal changes and differences among diverse populations or subgroups of the population. **All mortality rates in this section on total mortality are age-adjusted. Therefore, the reader should understand that the term age-adjusted precedes the word rate even though it was eliminated from the text to make reading easier.**

The 1989 total mortality rate was 529.2, the lowest rate of the decade representing a 9 percent improvement in survival chances from the decade's first to last year (Table 2-1). In 1980 and 1981, the Arizona total mortality rate was lower than the national rate. From 1982 to 1985, the Arizona and national annual mortality rates alternated in terms of which was higher. Beginning in 1986, annual Arizona mortality rates have been consistently higher than the national rate.

Cause-specific Mortality During the Decade

Diseases of the heart and cerebrovascular diseases (stroke) are two of the leading causes of death that share many risk factors such as hypertension, smoking, obesity-and high levels of cholesterol. The 1989 heart disease mortality rate was the lowest of the decade for both Arizona and the nation, while the 1989 stroke death rate was the lowest of the decade only for the nation. Arizonans compared to their national peers were less likely to die from either cause both at the decade's beginning and end (Table 2-1).

However, from 1980 to 1989, heart disease mortality rates declined less in Arizona than in the nation (16 and 23 percent respectively) as did stroke mortality rates (23 and 30 percent respectively). For this reason, the mortality advantage of Arizonans relative to their national counterparts fell over the decade from 11 to 3 percent less for heart disease and from 14 to 6 percent less for stroke.

Neither Arizona nor the nation made any sustained progress in reducing death rates from malignant neoplasms (cancer), with the 1980 and 1989 rates virtually identical in both instances. Cancer claimed the lives of Arizonans compared to their national peers at a 9 percent lower rate in 1989. In contrast, Arizonans relative to their national counterparts were at greater risk to die from chronic obstructive pulmonary disease (COPD) in both 1980 and 1989. However, the COPD death rate rose by 22 percent in the nation from 1980 to 1989 but was reduced, albeit by a small amount, for Arizona residents. Thus, the COPD mortality disadvantage of Arizonans compared to their national peers narrowed from 74 percent greater in 1980 to 39 percent greater in 1989.

Despite a 25 percent reduction in unintentional injury death rates from 1980 to 1989, Arizonans remained at a 17 percent higher risk from this cause of death than their national counterparts. For Arizonans in 1989 to have had the same mortality risk for unintentional injuries as their national peers would have required a 36 percent reduction from 1980 to 1989 in death rates. Nonetheless, the 1989 Arizona unintentional injury death rate was the decade's lowest and the first annual rate below 40 per 100,000.

The motor-vehicle related component of unintentional injury death rates declined more in Arizona than the nation (30 and 15 percent respectively), while the non-vehicular component fell less for Arizona than for the nation (19 and 28 percent respectively). Only the 1989 vehicular fatality death rate was the lowest of the decade for Arizona. Arizonans compared to their national peers were 15 percent more likely to be fatally injured in a vehicular event in 1989 compared to 38 percent more likely in 1980. The 1989 Arizona motor vehicle death rate was 56 percent greater than the 1990 objective, while the national rate was only 14 percent greater than the objective of 17/100,000.

The increases from 1980 to 1989 in death rates from both pneumonia/influenza and diabetes were at least 2.5 times greater in Arizona than the nation. Arizona 1989 mortality rates for both causes were the highest of the decade. Relative to people nationally, Arizonans in 1989 were 38 percent more likely to die from pneumonia and influenza and 4 percent more likely to die from diabetes.

Throughout the decade, suicide rates were much higher for Arizonans than their national peers. The 1989 Arizona suicide death rate was 46 percent higher than the national rate, higher than the annual rates from 1980 to 1985, but lower than annual rates from 1986 to 1988. Arizonans were more likely to kill themselves during the last five years than the first five years of the decade. In contrast, annual alcoholism death rates for Arizona were lower on average during the last five than the first five years of the decade.

Death rates from infectious and parasitic diseases doubled from 1980 to 1989 largely because of the inclusion of deaths from Human Immunodeficiency Virus (HIV) infection. The practice of including deaths from HIV infection in this category began in 1987. Annual death rates progressively increased thereafter.

Gender Differences During the Decade

Each year of this decade Arizona males had better survival chances than their national peers (Table 2-2). In contrast, since 1982 annual mortality rates for Arizona females were higher than for females nationally. In 1989, the death rate of Arizona males was 3 percent less than the rate for males in the nation, while the death rate of Arizona females was 5 percent higher than the rate for females in the U.S. Moreover, the 1989 Arizona female mortality rate still had not fallen to 411.2/100,000, the rate of national females in 1982.

The improvement in survival chances from 1980 to 1989 was almost twice as great for Arizona males than for females (11 and 6 percent respectively). This difference in amount of improvement narrowed the male to female excess in rate of death from 68 percent in 1980 to 58 percent in 1989. Nonetheless, the 1989 total mortality rate for both genders was the lowest of the decade.

Males had nearly equal reductions from 1980 to 1989 in death rates for both heart disease and stroke, while stroke mortality rates declined over two times more than heart disease death rates for females (Table 2-2). The mortality risk for a stroke death was identical for both genders in 1989. The male relative to female disadvantage to die from heart disease was smaller in 1989 (a 66 percent excess) than in 1980 (82 percent excess). In absolute numbers, 378 more females and 348 more males died from heart disease in 1989 than in 1980, but only 3 more females and 38 more males died from stroke.

In 1980, males were 63 percent and females 25 percent more likely to die from heart disease than cancer. Cancer mortality rates did not improve for either gender during the decade, with the respective 1989 rates virtually identical to the 1980 rates. The identity of rates from the beginning to the end of the decade meant that 700 more males and 554 more females died of cancer in 1989 than 1980. Thus, on an average day in 1989 compared to 1980 at least three more people died from cancer. No improvement in cancer mortality coupled with the reduction in heart disease mortality narrowed the relative risk of death from the two leading causes. In 1989, heart disease relative to cancer was a 33 percent greater risk for males and a 9 percent greater risk for females.

Unintentional injury death rates declined by 25 percent from 1980 to 1989 for both genders, with the 1989 rates the lowest of the decade. This large a reduction almost compensated for the growth in population, so that only 3 more females and 38 more males were fatally injured in 1989 than in 1980. The male to female differential in unintentional injury death rates remained nearly 3:1 in 1989 as it was in 1980.

Sixty-one of 100 females fatally injured in 1989 incurred that injury in a motor vehicle collision compared to 56 percent of males. The female 1989 death rate for non-motor vehicle unintentional injuries was the lowest of the decade and much below any

prior rate, while the male death rate for these injuries was higher than four prior annual rates. For both males and females, the 1989 rate for motor vehicle-related injury fatalities was the decade's lowest but a very similar low rate had occurred earlier in the decade, specifically in 1982.

The temporal trends in COPD death rates differed for the two genders, increasing by 49 percent for females and decreasing by 21 percent for males. The increasing trend for females occurred annually since 1983, while the male decline was annually consistent from 1987. COPD became the fourth leading cause of female death in 1989, displacing unintentional injuries which held that position annually from 1980 to 1988. COPD was the fourth leading cause of male death in each year of the decade.

Pneumonia/influenza death rates for males differed little between the first five and last five years of the decade, with two annual rates in the earlier half (1980 and 1984) exceeding four of the five rates in the later half. In contrast, annual rates for females from 1985 to 1989 were clearly higher than annual rates from 1980 to 1984, with no annual rate in the later half but three annual rates in the first half below 12/100,000. Female pneumonia/influenza death rates in 1988 and 1989 were the decade's highest.

Suicide mortality rates clearly increased from the first to last five years of the decade for males but just as clearly decreased for females. Since 1985, annual male suicide death rates have been greater than 27/100,000, a rate with no equivalent from 1980 to 1984. The 1989 suicide death rate of females was the decade's lowest and below 7/100,000, with 1988 having a similarly low rate. Males relative to females in 1989 were 4.5 times more likely to kill themselves compared to 3.5 times more likely in 1980. Almost 200 more males took their own lives in 1989 than in 1980.

The increase in the rate of death from diabetes was 2.6 times greater for males than females (49 and 19 percent respectively). The 1989 diabetes death rate for both genders was the highest of the decade. Male death rates for diabetes exceeded 12/100,000 for the first time in 1988, while female rates went above 11 only in 1989.

The large increase from 1980 to 1980 in male rates of death from infectious and parasitic diseases is largely due to the inclusion of deaths from HIV infection, a practice begun in 1987. The majority (53 percent) of 1989 male deaths from this cause were due to HIV infection compared to only 4 percent of female deaths. Deaths from HIV infection predominately occur at younger ages, i.e. 25-44 years, than do deaths from heart disease, cancer, stroke, COPD, diabetes and pneumonia/influenza.

Death rates for both genders declined from 1980 to 1989 for both alcoholism and homicide. Annual female death rates for alcoholism were equal to or less than 5/100,000 since 1986; a death rate this low did not occur in the prior years of the decade. Similarly, male alcoholism death rates fell and remained below 15/100,000 from 1985 to 1989; only one annual rate in the first half of this decade was this low. Erratic annual fluctuations in homicide death rates for both genders obscure any temporal decline.

Urban and Rural Differences by Gender in 1980 and 1989

The improvement in total mortality from 1980 to 1989 was at least 55 percent smaller for all rural residents, rural males and rural females than their respective urban comparison groups (Table 2-3). If urban residents had had the same (and smaller) reduction in total mortality as did rural residents from 1980 to 1989, 696 more urban residents would have died in 1989. In other words, two more residents of Maricopa or Pima county would have died on an average day in 1989.

Urban residents experienced declines in mortality rates for all of the top five leading causes of death. The largest decline was for unintentional injuries at 31 percent, followed by stroke at 23 percent, heart disease at 15 percent, COPD at 3 percent and cancer at 2 percent. In contrast, only three of five leading causes declined in rate for rural residents, with the declines much smaller. Rates of unintentional injuries decreased 20 percent, followed by a 10 percent decrease for heart disease and a 7 percent decrease for stroke. Simultaneously, rural residents had a 20 percent increase in

cancer death rates and a 21 percent increase in COPD death rates from 1980 to 1989.

When the decade began, rural compared to urban residents had lower death rates from heart disease (3 percent lower), cancer (15 percent lower), stroke (6 percent lower) and COPD (14 percent lower) and a higher death rate only for unintentional injuries (66 percent greater). By the end of the decade, the death rates for all five leading causes were higher for rural residents than for their urban peers. Relative to urban residents, the 1989 mortality risk of rural residents was 94 percent higher for unintentional injuries, 14 percent higher for stroke, 7 percent higher for COPD, 4 percent higher for cancer and 3 percent higher for heart disease.

Rural relative to urban residents had higher death rates for the remaining leading causes of death, except for infectious and parasitic diseases, in 1980 and their relative status had not changed in 1989. In 1989, rural compared to urban residents were 7 percent more likely to die from influenza/pneumonia, 22 percent more likely to commit suicide, 41 percent more likely to die from diabetes, 78 percent more likely to die from alcoholism and 9 percent more likely to be murdered. Altogether then, rural residents had a mortality disadvantage with respect to urban residents on 10 of the 11 leading causes in 1989. The largest 1989 rural disadvantage was 112 percent on the vehicular fatality rate, with the rural rate exceeding the 1990 objective by 120 percent.

The reversal from lower than in 1980 to higher than in 1989 on heart disease, cancer, stroke and COPD applied to rural males relative to urban males but not to rural females relative to urban females. Rural compared to urban females maintained their lower death rates on heart disease, cancer and COPD. However, their mortality advantage dropped from 17 to 2 percent for cancer, from 31 to 9 percent for COPD and from 10 to 7 percent for heart disease. In addition, their relative position with respect to unintentional injury death rates went from 33 to 77 percent greater and with respect to stroke went from 8 percent lower to 7 percent higher.

In 1989, urban males had the highest death rate among the gender by region groups only for infectious and parasitic diseases, largely because HIV infection still primarily occurs among urban males. The contribution of HIV infection to the infectious and parasitic diseases death rate was 59 percent for urban males, 29 percent for rural males, 6 percent for urban females and 1 percent for rural females. Rural females had the highest 1989 diabetes death rate, while rural males had the highest death rates for the remaining nine leading causes.

Differences in Total Mortality by County During the Decade

County-specific total mortality rates for each year of the decade are given in Table 2-4. Total mortality rates declined at least 10 percent from 1980 to 1989 for Apache, Cochise, Coconino, Greenlee, Pima and Yuma counties. LaPaz county had a 10 percent decline from 1983 to 1989. Gila, Maricopa, Navajo, Santa Cruz and Yavapai counties had reductions in total mortality from the first to last year of the decade of less than 10 percent. Survival chances worsened by at least 10 percent from 1980 to 1989 for residents of Pinal and Mohave counties.

Relative standing among the counties during the decade was compared by determining each county's average rank-order for the five years in the first and second half of the decade. A five-year average ranking was used because yearly rankings may vary widely as do the yearly annual mortality rates. The ranking was done from the highest or worst mortality (rank = 1) to the lowest or best mortality rate. LaPaz county was excluded from the rank-ordering for the first half of the decade because it did not exist for three years. The number of years during each half that the county's mortality rate exceeded the statewide rate also was determined. The rank-order of counties from the worst = 1 to the best = 14 or 15 and the number of exceedances (EXC) are given below.

County	1980-1984 Rank	1980-1984 EXC	1985-1989 Rank	1985-1989 EXC
Apache	1	5	3	5
Cochise	12	2	13	0
Coconino	13	0	14	1
Gila	3	5	6	5
Graham	6	4	7	5
Greenlee	5	4	10	2
Maricopa	11	0	12	0
Mohave	8	1	4	5
Navajo	2	5	1	5
Pima	10	1	11	2
Pinal	4	5	2	5
Santa Cruz	14	0	15	0
Yavapai	7	5	8	3
Yuma	9	3	9	2
LaPaz	NA	2	5	5

Only two counties did not exceed the statewide total mortality rate rate in any year of the decade, Maricopa and Santa Cruz. In both the first and second half of the decade, Santa Cruz residents had the best relative survival chances among counties, followed by Coconino county residents, Cochise county residents, Maricopa county residents and Pima county residents. Mortality rates for Apache, Navajo and Pinal ranked among the worst four counties in both halves of the decade. These three counties also exceeded the statewide mortality rate in every year of the decade as did Gila county. Graham county exceeded the statewide rate in 9 years, Yavapai county in 8 years and LaPaz county in 7 years, all the years it existed.

The survival chances of Mohave county residents relative to other counties deteriorated the most from the first to second half of the decade, moving from a ranking of 8 to 4. Greenlee county residents had the greatest relative improvement in mortality rate, going from a ranking of 5 for 1980-84 to a ranking of 10 for 1985-89. These changes in ranking conformed to the percent change between the 1980 and 1989 mortality rates for Mohave and Greenlee county (increase of 17 and decrease of 41 percent respectively).

Cause-specific Mortality by County in 1980 and 1989

A profile of the relative standing of counties' cause-specific death rates was developed separately for 1980 and for 1989. A county was included in the profile only when its cause-specific mortality rate was based on at least 10 resident deaths, thereby ensuring a minimally reliable rate. The profiles used the following definitions. A county was considered to have the highest or lowest mortality risk from a cause if it had the highest or lowest rate among the counties respectively based on the data presented in Table 2-5. Higher mortality risk was when a mortality rate was not the highest among the counties but was at least 12 percent above the state rate. Conversely, lower mortality rate was when a rate was not the lowest among the counties but was at least 12 percent below the state rate. When a county's rate met none of the prior definitions but was based on the specified number of deaths, the mortality risk was called average or at the level of all residents of the state. All comparisons are made with the state not the U.S. rate.

The reader is reminded that the term lowest or lower mortality risk does not mean that persons with the disease do not die from it. A county relative to other counties may have low rates of death from diseases which occur mainly at older ages (e.g., heart disease, cancer and stroke) because it has high death rates from causes which occur primarily at younger ages (e.g., unintentional injuries). Thus, the number of survivors in

the population who may acquire the diseases of older age are seriously reduced.

Cause-specific mortality profiles by county were introduced in the annual report of 1987 data. If the 1989 cause-specific risk level of a county equals either the 1987 or 1988 level, the county's name is followed by an asterisk(*); if 1989 equals both 1987 and 1988, the county's name is followed by two asterisks (**). The profiles are given below for 1980 and 1989 separately.

	1980	1989
Diseases of the heart		
Highest mortality risk:	Greenlee	LaPaz
Higher mortality risk:	Mohave	Greenlee, Mohave**, Pinal
Lowest mortality risk:	Santa Cruz	Apache**
Lower mortality risk:	Apache, Coconino Yuma*	Coconino*, Santa Cruz*,
Average mortality risk:	Cochise, Gila, Graham Maricopa, Navajo, Pima, Pinal, Yavapai, Yuma	Cochise**, Gila*, Pima**, Graham**, Maricopa**, Navajo*, Yavapai**
Cancer		
Highest mortality risk:	Graham	Pinal
Higher mortality risk:	Santa Cruz	Gila, Mohave*, Yavapai*
Lowest mortality risk:	Gila	Apache
Lower mortality risk:	Coconino, Navajo, Pinal	Coconino, Graham, LaPaz, Santa Cruz**
Average mortality risk:	Apache, Cochise, Maricopa, Mohave, Pima, Yavapai, Yuma	Cochise*, Greenlee*, Maricopa**, Pima**, Navajo, Yuma**
Unintentional Injuries: Motor Vehicle Related		
Highest mortality risk:	Apache	Apache**
Higher mortality risk: Pinal, Yavapai	Gila, Mohave, Navajo, Mohave**, Navajo**, Pinal**, Yavapai**, Yuma**	Coconino**, Gila**,
Lowest mortality risk:	Maricopa	Pima*
Lower mortality risk:	No county	Cochise, Maricopa*
Average mortality risk:	Cochise, Coconino Pima, Yuma	No county
Unintentional Injuries: Not Related to Motor Vehicles		
Highest mortality risk:	Graham	Apache**
Higher mortality risk: Coconino, Mohave, Navajo, Yavapai	Apache, Cochise, Yuma Pinal*, Yuma**	Coconino**, Navajo**,
Lowest mortality risk:	Pima	Cochise*
Lower mortality risk:	Maricopa	No county
Average mortality risk:	Gila, Pinal	Maricopa, Mohave, Pima**, Yavapai*
Cerebrovascular Diseases or Stroke		
Highest mortality risk:	Yuma	Navajo
Higher mortality risk:	Coconino Yuma*	Apache, Cochise, Pinal*,

Lowest mortality risk:	Navajo	Coconino
Lower mortality risk:	Mohave, Pinal	No county
Average mortality risk:	Cochise, Gila, Pima, Maricopa, Yavapai	Gila*, Graham*, Pima**, Maricopa**, Mohave**, Santa Cruz*, Yavapai**

Chronic Obstructive Pulmonary Disease

Highest mortality risk:	Greenlee	Mohave
Higher mortality risk:	Pima, Pinal, Yavapai, Yuma	Yavapai**, Yuma**	Pinal*, Santa Cruz*,
Lowest mortality risk:	Mohave	Coconino*
Lower mortality risk:	Gila	Cochise**, Gila
Average mortality risk:	Cochise, Maricopa	Graham, Maricopa*, Pima*

Suicide

Highest mortality risk:	Mohave	LaPaz
Higher mortality risk:	Cochise, Pinal, Yavapai	Coconino, Gila, Navajo*, Yavapai**, Yuma*
Lowest mortality risk:	Pima	Mohave
Lower mortality risk:	No county	No county
Average mortality risk	Maricopa, Navajo, Yuma	Cochise, Maricopa**, Pima*, Pinal*

Pneumonia and Influenza

Highest mortality risk:	Navajo	Apache*
Higher mortality risk: Coconino, Gila, Pima, Graham, Pinal	Apache, Cochise,	Graham, Navajo*, Pinal*
Lowest mortality risk:	Mohave	Cochise
Lower mortality risk:	Maricopa, Yavapai	Yuma
Average mortality risk:	Yuma	Coconino*, Gila, LaPaz, Maricopa**, Mohave**, Pima*, Yavapai

Diabetes

Highest mortality risk:	Navajo	Pinal
Higher mortality risk:	Pinal, Yuma Gila**, Mohave, Yuma	Apache, Coconino*,
Lowest mortality risk:	Yavapai	Yavapai
Lower mortality risk:	No county	No county
Average mortality risk:	Cochise, Maricopa, Pima	Cochise, Maricopa*, Pima*

Alcoholism

Highest mortality risk:	Navajo	Apache*
Higher mortality risk:	Pinal, Gila, Yuma Navajo*, Pinal*, Yavapai	Cochise, Coconino*,
Lowest mortality risk:	Yavapai	Maricopa**
Lower mortality risk:	No county	No county
Average mortality risk:	Cochise, Maricopa, Pima	Pima

Infectious and Parasitic Diseases		
Highest mortality risk:	Navajo	Navajo
Higher mortality risk:	Pima, Yavapai	Maricopa
Lowest mortality risk:	Cochise	Mohave
Lower mortality risk:	No county	Yavapai, Yuma*
Average mortality risk:	Maricopa, Pinal	Coconino, Gila, Pima, Pinal

Mortality Differences by Ethnicity During the Decade

Average age at death. Population denominators to compute rates were not available by ethnic group in 1989. These denominators will be provided by the 1990 U.S. Census in spring 1991 and next year's edition of this report will include ethnic-specific mortality rates. This report compared ethnic groups on other indices that reflect mortality differentials. One is the average or mean age at which death from all causes occurred.

Table 2-6 gives the average age at death by ethnicity and gender for each year from 1980 to 1989. To assess whether each ethnic group was gaining added years before death occurred or the average age at death was increasing, the grand mean of the yearly means for the first and second half of the decade was computed. Using a grand mean removes some of the random error creating fluctuations in annual means and permits a more reliable comparison between the beginning and end of the decade. The two grand means of average age at death for each ethnic and gender group are given below.

	Males		Females	
Ethnic Group	1980-84	1985-89	1980-84	1985-89
White non-Hispanics	66.4	67.1	71.2	72.9
Hispanics	55.4	54.3	62.3	62.4
Blacks	56.0	55.9	59.9	60.9
Native Americans	48.0	48.2	53.1	55.7

White non-Hispanic males during the first half of the decade died at an average age that exceeded the average age of death of Hispanic males by 11 years, of Black males by 10.4 years and of Native American males by 18.4 years. Hispanic and Black males gained no added years before death occurred from the first to second half of the decade and, in fact, their average age of death was lower during the second half of the decade by 1.1 and 0.1 years respectively. In contrast, the average age at death of white non-Hispanic males increased by 0.7 years during 1985-89. Native American males made a more modest gain of 0.2 years. Thus, the gap between white non-Hispanic males and the other ethnic groups was wider as the decade ended, with Hispanic males dying younger by an average 12.8 years, Black males by 11.2 years and Native American males by 18.9 years.

The gap between the average age at death between white non-Hispanic females and females of the other ethnic groups also was substantial during the first five years of the decade. Compared to white non-Hispanic females, on average Hispanic females were 8.9 years, Black females 11.3 years and Native American females 18.1 years younger when they died. Native American females made the largest gain in average age (2.6 years) from the first to second half of the decade, followed by white non-Hispanic females (1.7 years). This reduced the mortality disadvantage of Native American females to 17.2 years. However, Black and Hispanic females made more modest gains than white non-Hispanics, so their mortality disadvantages increased to 12 and 10.5 years respectively.

Premature mortality. The results on average age at death strongly indicate that a higher proportion of deaths among ethnic minorities occur before the expected years of life are reached based on yearly national estimates of life expectancy. This proportion is termed the premature mortality percent. Table 2-7 gives the annual premature

mortality percents for ethnic by gender groups from 1980 to 1989. The data in this table are discussed in terms of the average percents for the first and second five years of the decade, with progress indicated by a lower percent for the second half.

Only white non-Hispanic females had a minority of their deaths occur prematurely, with the percent decreasing from 47.5 for the first half to 44.5 for the second half. Premature mortality percents for males declined from the first to second half of the decade only for white non-Hispanics and Blacks, going from 61.1 to 59.4 percent and from 76.0 to 73.9 percent respectively. Premature death characterized 73.3 and 79.2 of Hispanic and Native American male deaths respectively in the first half of the decade, with the respective percents for the second half higher at 74.2 and 80.3. Thus, at least 74 of every 100 ethnic minority male deaths were premature as the decade closed.

In the final five years of the decade, at least 59 out of every 100 deaths of ethnic minority females were premature. Native American females had the highest 1985-89 premature mortality percent (70.3), which represented a 2 percentage difference from their 1980-84 percent (72.3). Black females had the next highest 1985-89 premature mortality percent (63.6), followed by Hispanic females (59.2). Hispanic females percent increased from their 1980-84 percent of 58.8, while Black females declined from their 1980-84 percent of 65.2. No group of ethnic minority females improved as much in their premature mortality percent as did white non-Hispanic females.

Based on the data in Table 2-8, the average age at premature death improved or increased by at least one year from the first to second half of the decade only for white non-Hispanic females and Native American females. Hispanic females and Black males who died prematurely did so at a younger average age in the five years ending than in the five years beginning the decade, with decreases in average age of 0.3 and 1.5 years respectively. In the last half of the decade, the average age at premature death of white non-Hispanic males was 56.9 years compared to 44.7 years for Hispanic males, 46.4 years for Black males and 39.4 years for Native American males. For females, white non-Hispanics who died prematurely averaged 58.7 years, Hispanics averaged 47.4 years, Blacks averaged 47.6 years and Native Americans averaged 43.3 years of age.

The proportion of premature deaths varies by cause of death (Table 2-9). In 1989, alcoholism had the highest proportion of premature deaths at 93 percent. Vehicular unintentional injuries followed at 92 percent, suicide at 88 percent, non-vehicular unintentional injuries at 79 percent, infectious and parasitic diseases at 73 percent, cancer at 64 percent, diabetes at 63 percent and COPD at 53 percent.

The minority of influenza/pneumonia (29 percent), stroke (31 percent) or heart disease deaths (43 percent) occur prematurely. In other words, the majority of persons who die from each of these causes do so after they have survived to the expected years of life. In addition, heart disease and stroke can be prevented in large measure and vaccines are available to prevent some forms of influenza and the pneumonia often associated with it. Therefore, groups with a majority of premature deaths from any of these causes represent subpopulations with a significant inequality from the norm, i.e., a minority of premature deaths. These subpopulations require more intensive prevention efforts if the proportion of premature mortality is to be reduced.

The majority of male heart disease deaths were premature (53 percent) compared to a minority of female heart disease deaths (32 percent). Black males who died from heart disease were most likely among the groups in Table 2-9 to die prematurely, with 71 percent of their deaths premature and an average age at death of 66.5 years, nearly six years younger than the average age for males overall.

The majority of both Hispanic and Native American male deaths from stroke were premature, with premature mortality percents of 54 and 57 respectively compared to the 39 percent for males overall. Males in general died from a stroke at an average age of 75.3 years. The average age at death from stroke of Native American males was nearly 9 years younger (66.7 years) and of Hispanic males was 3.5 years younger (71.8 years).

Influenza/pneumonia claimed 71 percent of Black male and 57 percent of Native American male lives prematurely compared to 37 percent for males overall. Compared to the statewide average age at death from pneumonia/influenza for males of 74 years, Black males' average age of death was almost 14 years younger and Native American males were nearly seven years younger on average.

TABLE 2-1

TRENDS IN AGE-ADJUSTED[1] MORTALITY RATES FOR LEADING CAUSES OF DEATH[2] IN ARIZONA AND THE UNITED STATES,[3] 1980-1989

CAUSE/AREA	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	PERCENT CHANGE FROM 1980
DISEASES OF HEART											
Arizona	180.0	176.8	182.3	171.2	166.9	162.5	157.9	161.9	157.9	150.8	-16.2
United States	202.0	195.0	190.5	188.5	183.3	181.7	175.4	169.9	166.7	155.9	-22.8
MALIGNANT NEOPLASMS											
Arizona	122.8	120.0	121.8	122.3	123.9	125.2	126.1	128.6	126.3	122.5	-0.2
United States	132.8	131.6	132.5	132.3	133.1	132.5	132.5	133.1	133.3	133.7	+0.7
UNINTENTIONAL INJURIES, TOTAL											
Arizona	52.4	51.4	44.8	40.8	44.8	42.9	44.3	43.0	43.2	39.1	-25.4
United States	42.3	39.8	36.6	34.9	35.6	34.3	35.5	34.6	35.1	33.5	-20.8
Motor vehicle-related											
Arizona	31.7	31.3	24.6	22.7	27.5	27.0	27.9	26.4	25.1	22.3	-29.7
United States	22.9	21.8	19.3	18.1	19.2	18.3	19.8	19.7	20.1	19.4	-15.3
Other than motor vehicle											
Arizona	20.7	20.1	20.2	18.1	17.3	15.9	16.4	16.6	18.1	16.8	-18.8
United States	19.5	18.0	17.3	16.8	16.4	16.0	15.7	14.9	15.0	14.1	-27.7
CEREBROVASCULAR DISEASES											
Arizona	34.9	31.9	30.7	31.0	31.9	29.1	27.5	27.4	26.6	26.9	-22.9
United States	40.8	38.1	35.8	34.3	33.9	32.3	30.4	30.1	29.8	28.5	-30.1
CHRONIC OBSTRUCTIVE PULMONARY DISEASE											
Arizona	27.6	25.0	24.2	24.7	26.4	26.3	27.6	26.5	26.1	27.0	-2.2
United States	15.9	16.3	16.2	17.6	18.0	18.6	18.5	18.7	19.2	19.4	+22.0
PNEUMONIA AND INFLUENZA											
Arizona	16.9	13.9	14.3	12.7	16.2	15.0	16.6	15.6	17.7	18.3	-8.3
United States	12.9	12.3	10.9	11.2	12.2	13.2	13.6	13.2	14.2	13.3	+3.1
SUICIDE											
Arizona	16.5	16.2	16.8	16.6	16.5	17.1	17.8	19.3	17.8	17.1	+3.6
United States	11.4	11.5	11.6	11.7	11.6	11.5	11.7	11.7	11.3	11.7	+2.6
DIABETES											
Arizona	9.1	8.6	9.0	10.5	9.6	10.0	9.5	10.0	10.7	11.8	+29.7
United States	10.1	9.8	9.6	9.8	9.9	10.1	9.4	9.6	9.9	11.3	+11.9
INFECTIOUS AND PARASITIC DISEASES[4]											
Arizona	6.3	7.4	7.1	6.3	6.9	7.8	7.3	10.3	11.6	12.9	+104.8
United States	5.8	6.2	6.2	6.6	7.9	8.2	9.1	13.5	NA	NA	NA
ALCOHOLISM											
Arizona	11.9	11.4	10.7	9.0	10.8	10.0	8.1	8.0	9.3	8.4	-29.4
United States	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALL CAUSES											
Arizona	582.7	560.6	570.6	547.3	552.0	544.2	543.6	548.4	544.2	529.2	-9.2
United States	585.8	568.2	553.8	550.5	545.9	546.1	541.7	536.2	536.3	524.1	-10.5

1 Adjusted to U.S. population of 1940 and presented per 100,000 population.
2 Leading causes are those 10 causes with the greatest total number of deaths in Arizona for the 1980 to 1989 time period.
3 The U.S. data furnished by the National Center for Health Statistics; 1988 and 1989 data are provisional.
4 Beginning in January 1987, includes data for the category numbers 042-044 (HIV infection), following the redefinition by the National Center for Health Statistics.

TABLE 2-2

TOTAL AGE-ADJUSTED MORTALITY RATES[1] FOR LEADING CAUSES OF DEATH[2] BY GENDER IN ARIZONA, 1980-1989

CAUSE/GENDER	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	PERCENT CHANGE FROM 1980
DISEASES OF HEART											
Male	238.0	233.4	232.5	223.9	218.9	210.5	206.0	211.2	201.7	192.2	-19.2
Female	130.8	128.3	130.8	126.5	122.9	121.5	117.5	120.0	120.4	115.8	-11.5
MALIGNANT NEOPLASMS											
Male	145.6	145.5	147.2	146.2	147.6	148.4	150.0	154.3	153.9	144.1	-1.0
Female	104.8	99.3	101.5	105.6	105.6	107.3	108.0	108.9	104.5	106.1	+1.2
UNINTENTIONAL INJURIES, TOTAL											
Male	78.9	77.1	63.5	60.1	66.4	62.3	63.5	62.7	62.5	59.0	-25.2
Female	26.7	26.2	25.6	23.9	23.6	23.9	25.4	23.6	23.8	19.8	-25.8
Motor vehicle-related											
Male	47.1	46.6	34.7	33.2	40.0	40.0	39.4	38.0	35.6	33.0	-29.9
Female	16.8	16.2	13.8	12.3	14.3	14.3	16.5	14.9	14.6	12.0	-28.6
Other than motor vehicle											
Male	31.8	30.5	28.8	26.9	25.5	22.3	24.0	24.7	26.8	26.0	-18.2
Female	10.0	10.0	11.8	11.7	9.3	9.6	8.8	8.7	9.2	7.8	-22.0
CEREBROVASCULAR DISEASES											
Male	34.1	31.7	30.1	30.9	32.8	30.7	27.5	27.9	26.1	26.9	-21.1
Female	35.5	31.9	31.0	31.1	31.1	27.9	27.6	26.8	26.8	26.7	-24.8
CHRONIC OBSTRUCTIVE PULMONARY DISEASE											
Male	43.1	38.0	36.8	35.7	37.6	35.9	38.4	35.5	34.7	34.0	-21.1
Female	14.8	14.6	14.1	15.9	17.3	18.9	19.1	19.4	20.0	22.0	+48.7
PNEUMONIA AND INFLUENZA											
Male	20.4	18.1	18.0	16.4	20.1	18.0	19.6	18.7	19.9	21.0	+2.9
Female	13.9	11.8	11.2	9.7	13.1	12.5	14.2	13.1	15.9	15.9	+14.4
SUICIDE											
Male	26.1	23.9	25.4	25.2	26.2	27.5	27.2	30.0	29.4	28.5	+9.2
Female	7.5	8.9	8.8	8.5	7.2	7.2	8.8	8.9	6.6	6.4	-14.7
DIABETES											
Male	8.4	9.5	9.3	11.3	10.5	10.7	10.8	9.9	12.1	12.5	+48.8
Female	9.6	7.9	8.6	9.9	8.8	9.6	8.4	9.8	9.5	11.4	+18.8
INFECTIOUS AND PARASITIC DISEASES[3]											
Male	7.0	7.6	7.2	6.4	6.7	8.6	7.9	8.7	16.9	19.2	+174.3
Female	5.4	4.9	5.6	5.4	5.6	5.8	5.5	5.8	6.2	6.7	+24.1
ALCOHOLISM											
Male	17.4	17.3	15.4	14.3	15.3	14.5	12.6	11.3	14.2	12.6	-27.6
Female	7.0	5.9	6.5	5.6	6.6	6.7	4.0	5.0	4.7	4.5	-35.7
HOMICIDE											
Male	15.9	15.7	14.7	13.5	13.5	11.8	15.0	12.5	13.6	13.2	-17.0
Female	5.5	4.8	4.0	3.5	4.2	4.6	4.7	3.9	5.3	5.1	-7.3
ALL CAUSES											
AZ Male	743.9	723.8	698.5	685.5	698.6	686.9	686.2	690.8	684.2	659.2	-11.4
Female	441.7	416.9	421.2	420.3	425.6	418.0	420.1	424.3	420.9	416.0	-5.8
U.S. Male	777.2	753.3	733.1	725.3	716.7	716.8	709.1	698.6	699.8	679.6	-12.6
Female	432.6	420.4	411.2	411.5	409.7	409.4	406.6	403.3	403.5	396.4	-8.4

1 Adjusted to U.S. population of 1940 and presented per 100,000 population.
2 Leading causes are those 11 causes with the greatest number of deaths for the 1980 to 1989 time period.
3 Beginning in January 1987, includes data for the category numbers 042-044 (HIV infection), following the redefinition by the National Center for Health Statistics.

TABLE 2-3

AGE-ADJUSTED MORTALITY RATES[1] FOR LEADING CAUSES OF DEATH[2] BY GENDER IN URBAN AND RURAL AREAS, ARIZONA, 1980 AND 1989

	BOTH GENDERS			MALE			FEMALE		
CAUSE/YEAR	Statewide	Urban	Rural	Statewide	Urban	Rural	Statewide	Urban	Rural
DISEASES OF HEART									
1980	180.0	176.4	171.1	238.0	240.0	230.5	130.8	133.8	120.3
1989	150.8	149.8	154.7	192.2	188.2	205.5	115.8	117.7	109.4
% change from 1980:	-16.2	-15.1	-9.6	-19.2	-21.6	-10.9	-11.5	-12.0	-9.1
MALIGNANT NEOPLASMS									
1980	122.8	124.3	105.5	145.6	152.1	124.9	104.8	109.1	90.8
1989	122.5	121.4	126.3	144.1	141.4	152.1	106.1	106.6	104.5
% change from 1980:	-0.2	-2.3	+19.7	-1.0	-7.0	+21.8	+1.2	-2.3	+15.1
UNINTENTIONAL INJURIES, TOTAL									
1980	52.4	43.9	72.7	78.9	66.4	114.4	26.7	24.8	33.0
1989	39.1	30.2	58.5	59.0	49.0	91.7	19.8	16.8	29.7
% change from 1980:	-25.4	-31.2	-19.5	-25.2	-26.2	-19.8	-25.8	-32.3	-10.0
Motor Vehicle-Related									
1980	31.7	27.5	41.4	47.1	41.8	61.6	16.8	15.2	22.1
1989	22.3	17.6	37.4	33.0	25.8	56.7	12.0	9.5	20.3
% change from 1980:	-29.7	-36.0	-9.7	-29.9	-38.3	-8.0	-28.6	-37.5	-8.1
Other than Motor Vehicle									
1980	20.7	16.4	31.3	31.8	24.6	52.8	9.9	9.6	10.9
1989	16.8	12.6	21.1	26.1	23.3	35.0	7.8	7.3	9.4
% change from 1980:	-18.8	-23.2	-32.6	-17.9	-5.3	-33.7	-21.2	-24.0	-13.8
CEREBROVASCULAR DISEASE									
1980	34.9	34.4	32.4	34.1	34.5	32.9	35.5	36.2	33.3
1989	26.9	26.4	30.1	26.9	26.4	28.8	26.7	26.3	28.1
% change from 1980:	-22.9	-23.3	-7.1	-21.1	-23.5	-12.5	-24.8	-27.4	-15.6
CHRONIC OBSTRUCTIVE PULMONARY DISEASE									
1980	27.6	27.9	24.0	43.1	45.0	38.1	14.8	16.0	11.0
1989	27.0	27.0	29.0	34.0	33.0	38.0	22.0	22.0	20.0
% change from 1980:	-2.2	-3.2	+20.8	-21.1	-26.7	-0.3	+48.7	+37.5	+81.8
PNEUMONIA AND INFLUENZA									
1980	16.9	15.2	20.1	20.4	18.5	25.7	13.9	13.4	15.9
1989	18.3	18.0	19.2	21.0	20.2	24.0	15.9	16.1	15.5
% change from 1980:	+8.3	+18.4	-4.5	+2.9	+9.2	-6.6	+14.4	+20.2	-2.5
SUICIDE									
1980	16.5	15.5	18.2	26.1	24.2	30.5	7.5	7.8	6.6
1989	17.1	16.2	19.8	28.5	26.4	34.6	6.4	6.5	6.1
% change from 1980:	+3.6	+4.5	+8.8	+9.2	+9.1	+11.5	-14.7	-16.7	-7.6
DIABETES									
1980	9.1	7.8	11.3	8.4	8.0	9.4	9.6	8.4	13.6
1989	11.8	10.8	15.2	12.5	11.8	14.7	11.4	10.1	15.7
% change from 1980:	+29.7	+38.5	+34.5	+48.8	+47.5	+56.4	+18.8	+20.2	+15.4
INFECTIOUS AND PARASITIC DISEASES									
1980	6.3	6.4	5.6	7.0	7.2	6.6	5.4	5.9	4.8
1989	12.9	13.5	10.4	19.2	20.5	14.0	6.7	6.6	7.0
% change from 1980:	+104.8	+110.9	+85.7	+174.3	+184.7	+112.1	+24.1	+11.9	+45.8
ALCOHOLISM									
1980	11.9	10.1	16.2	17.4	14.8	24.6	7.0	6.6	8.4
1989	8.4	7.2	12.8	12.6	10.8	19.0	4.5	3.8	7.0
% change from 1980:	-29.4	-28.7	-21.0	-27.6	-27.0	-22.8	-35.7	-42.4	-16.7
HOMICIDE									
1980	10.7	8.8	11.8	15.9	14.9	18.1	5.5	5.3	6.5
1989	9.1	8.9	9.7	13.2	12.7	14.5	5.1	5.1	5.1
% change from 1980:	-15.0	+1.1	-17.8	-17.0	-14.8	-19.9	-7.3	-3.8	-21.5
ALL CAUSES									
1980	582.7	554.8	597.2	743.9	731.5	775.2	441.7	441.7	446.1
1989	529.2	514.4	580.1	659.2	633.5	742.8	416.0	411.3	432.1
% change from 1980:	-9.2	-7.3	-2.9	-11.4	-13.4	-4.2	-5.8	-6.9	-3.1
[a] HIV Infection,[3] 1989	5.4	5.3	2.1	10.4	12.0	4.1	0.3	0.4	0.1

1 Adjusted to U.S. population of 1940 and presented per 100,000 population.
2 Leading causes are those 11 causes with the greatest total number of deaths for the 1980 to 1989 time period.
3 Not available for 1980. The category numbers 042-044 (HIV infection) were introduced in January 1987 by the National Center for Health Statistics.

TABLE 2-4

TRENDS IN AGE-ADJUSTED MORTALITY RATES[1] FOR ALL CAUSES BY COUNTY, 1980-1989

COUNTY	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	PERCENT CHANGE FROM 1980
APACHE	694.1	685.3	710.3	658.4	686.3	679.7	663.0	652.7	597.1	617.2	-11.1
COCHISE	583.2	545.5	524.6	584.6	524.9	510.1	480.6	535.6	524.7	500.6	-14.2
COCONINO	539.5	508.2	535.3	486.2	508.8	548.2	522.9	512.3	508.9	467.9	-13.3
GILA	613.7	618.9	718.5	651.4	633.1	583.5	620.3	582.3	587.4	592.5	-3.5
GRAHAM	622.1	628.3	556.3	573.6	578.8	549.7	575.2	573.8	565.6	629.2	+1.1
GREENLEE	777.5	481.3	664.5	578.9	600.0	441.3	456.8	654.4	599.8	457.5	-41.2
MARICOPA	572.9	553.1	540.4	530.3	548.3	541.1	532.0	530.9	525.9	525.5	-8.3
MOHAVE	573.5	560.7	590.2	542.2	538.9	607.8	589.4	623.8	638.2	670.2	+16.9
NAVAJO	691.3	659.2	613.5	620.7	634.8	700.6	713.9	644.8	643.7	676.1	-2.2
PIMA	584.4	552.7	530.7	533.7	540.7	522.7	547.8	549.7	537.3	519.9	-11.0
PINAL	633.5	627.0	598.1	602.2	622.6	562.7	669.3	631.9	664.2	698.8	+10.3
SANTA CRUZ	491.7	480.2	484.1	479.6	543.1	436.6	436.4	444.7	54..1	464.7	-5.5
YAVAPAI	584.3	572.9	571.4	580.5	567.1	543.2	525.2	607.6	591.9	591.5	-1.2
YUMA[2]	585.6	561.5	576.7	448.6	429.2	559.1	534.6	518.0	547.5	523.1	-10.7
LA PAZ	NA	NA	NA	660.6	634.0	605.6	575.1	645.3	631.9	593.8	-10.1[3]
ARIZONA	582.7	560.6	570.6	547.3	552.0	544.2	543.6	548.4	544.2	529.2	-9.2
U.S.	585.8	568.2	533.8	549.6	547.7	545.9	540.2	536.2	536.3	524.1	-10.5

1 Adjusted to U.S. population of 1940 and presented per 100,000 population.
2 La Paz County included in Yuma County prior to 1983.
3 Percent change from 1983 to 1989.

SOURCE: U.S. data furnished by the National Center for Health Statistics; 1989 data are provisional.

TABLE 2-5

AGE-ADJUSTED MORTALITY RATES[1] FOR LEADING CAUSES OF DEATH[2] AND AVERAGE AGE AT DEATH FROM ALL CAUSES BY COUNTY, ARIZONA, UNITED STATES, 1980 AND 1989

CAUSE/YEAR	U.S.[3]	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz[4]	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
DISEASES OF HEART																	
1980	202.0	180.0	151.7	167.1	139.4	182.5	158.7	354.6	NA	185.9	203.5	171.6	184.2	200.0	128.4	182.1	191.9
1989	155.9	150.8	101.8	163.0	115.9	168.2	165.0	178.5	215.5	165.5	190.2	161.4	150.0	184.2	128.9	167.7	120.7
MALIGNANT NEOPLASMS																	
1980	132.8	122.8	108.2	109.2	96.6	89.9	155.0	57.6*	NA	131.4	111.1	97.7	132.8	105.6	143.3	120.8	136.3
1989	133.7	122.5	79.9	114.9	93.6	148.6	103.9	114.9	105.9	125.7	149.2	135.1	122.4	154.5	95.2	138.2	134.3
UNINTENTIONAL INJURIES																	
1980	42.3	52.4	134.0	61.8	66.9	75.5	86.1	103.7	NA	46.0	71.7	97.5	45.9	65.5	38.9*	70.5	75.4
1989	33.5	39.1	141.1	31.6	58.5	51.3	60.7	49.2	72.1	33.6	58.5	84.5	32.1	78.1	10.7	42.3	49.5
MOTOR VEHICLE-RELATED																	
1980	22.9	31.7	92.3	32.9	34.2	52.6	32.9*	65.1*	NA*	28.0	39.3	47.4	30.8	45.7	15.2*	44.1	32.9*
1989	19.4	22.3	93.3	19.4	33.8	33.1	27.8*	20.8*	69.5*	18.4	42.4	42.6	16.1	55.8	10.7*	26.3	26.7*
OTHER THAN MOTOR VEHICLE																	
1980	19.5	20.7	41.7	28.9	32.7	22.9*	53.2*	38.6*	NA*	18.0	32.4	50.1	15.1	19.8	23.7*	26.4	42.5
1989	14.1	16.8	47.8	12.2	24.7	18.2*	32.9*	28.4*	2.6*	15.2	16.1	41.9	16.0	22.3	-	16.0	22.8
CEREBROVASCULAR DISEASE																	
1980	40.8	34.9	16.7*	35.1	41.0	36.7	27.9*	9.4*	NA*	36.7	28.1	24.8	33.7	30.0	27.6*	38.9	53.7
1989	28.5	26.9	32.1	31.0	16.9	27.9	29.5	-	27.5*	27.0	24.2	36.3	25.8	36.6	29.1	26.7	30.3
CHRONIC OBSTRUCTIVE PULMONARY DISEASE																	
1980	15.9	27.6	12.0*	27.0	17.0*	23.0	23.0*	45.0	NA*	26.0	18.0	14.0*	36.0	34.0	7.1*	32.0	33.0
1989	19.4	27.0	11.0*	21.0	16.0	22.0	26.0	-	17.0*	26.0	43.0	8.6*	29.0	40.0	32.0	36.0	32.0
PNEUMONIA AND INFLUENZA																	
1980	12.9	16.9	26.4	21.4	20.8	31.6	32.6	56.1*	NA	14.4	11.1	42.5	20.4	19.2	24.0*	14.8	17.5
1989	13.3	18.3	42.0	13.1	19.6	18.6	34.5	8.4*	17.1	18.1	17.4	27.2	18.1	23.3	14.5*	18.6	14.7
SUICIDE																	
1980	11.4	16.5	12.8*	20.1	15.1*	15.6*	13.7*	-	NA	16.5	32.7	18.1	14.8	21.1	-	32.0	15.5
1989	11.7	17.1	12.9*	15.8	20.8	19.7	19.2*	-	44.8	16.3	12.5	25.9	16.8	15.7	3.5*	31.8	20.2
DIABETES																	
1980	10.1	9.1	15.2*	8.2	7.2*	13.6*	3.0*	18.7*	NA*	8.1	9.5*	23.8*	9.3	18.9	3.6*	7.9	16.5
1989	11.3	11.8	23.5	13.1	15.9	17.5	25.0*	25.3*	18.7*	11.1	18.4	7.9*	11.3	24.0	15.8*	8.8	15.5
INFECTIOUS PARASITIC DISEASES																	
1980	5.8	6.3	-*	4.4*	5.0*	7.6*	5.8*	-	NA*	6.3	3.4*	10.3	7.3	6.4	4.9*	9.7	4.4*
1989[5]	NA	12.9	11.9*	3.6*	12.1	14.2	6.8*	-	2.6*	14.5	9.3	17.8	11.4	14.0	18.8*	9.5	9.8
ALCOHOLISM																	
1980	NA	11.9	32.7*	11.0	9.8*	22.4	17.0*	27.6*	NA	10.4	9.8*	42.7	12.2	15.8	11.2*	10.0	19.8
1989	NA	8.4	36.9	10.0	13.4	18.0*	26.7*	8.4*	8.4*	6.9	6.6*	23.4	9.2	11.3	-	11.6	7.1*
ALL CAUSES																	
1980	585.8	582.7	694.1	583.2	539.5	613.7	622.1	777.5	NA	572.9	573.5	691.3	584.4	633.5	491.7	584.3	585.6
1989	524.1	529.2	617.2	500.6	467.9	592.5	629.2	457.5	593.8	525.5	670.2	676.0	519.9	698.8	464.7	591.2	523.1
AVERAGE AGE AT DEATH FROM ALL CAUSES																	
1980	NA	65.3	54.4	64.2	56.7	64.3	62.7	58.7	NA	65.8	65.0	56.2	66.9	63.6	67.6	68.7	63.5
1989	NA	68.2	58.3	68.6	59.2	69.6	69.1	68.6	67.3	68.4	67.6	57.6	69.8	64.9	67.4	71.5	66.0

1 Adjusted to U.S. population of 1940 and presented per 100,000 population.
2 Leading causes are those with the greatest total number of deaths statewide for the 1980 to 1989 period.
3 Provisional.
4 Included in Yuma County prior to 1983.
5 Includes data for the category numbers 042-044 (HIV infection) introduced in January 1987 by the National Center for Health Statistics.
- No deaths.
* Less than ten deaths for a specific cause.

TABLE 2-6

AVERAGE AGE AT DEATH FROM ALL CAUSES BY GENDER AND ETHNICITY, ARIZONA, 1980-1989

YEAR/GENDER	ALL ETHNIC GROUPS[1]	WHITE[2]	HISPANIC[3]	BLACK	NATIVE AMERICAN
1980, Total	65.3	67.3	56.5	57.2	50.1
MALE	63.1	65.3	53.0	55.2	49.1
FEMALE	68.3	70.1	61.7	60.4	51.7
1981, Total	65.6	67.7	56.3	55.6	48.6
MALE	63.0	65.5	52.6	54.0	46.2
FEMALE	69.0	70.7	62.1	58.3	52.8
1982, Total	66.8	68.7	58.3	59.0	50.3
MALE	64.5	66.6	54.7	57.7	47.7
FEMALE	69.8	71.5	62.7	61.2	54.7
1983, Total	67.1	69.1	58.8	58.2	49.2
MALE	65.0	67.1	56.0	55.7	48.6
FEMALE	70.0	71.6	63.1	62.1	52.2
1984, Total	67.3	69.4	58.3	57.4	50.5
MALE	65.2	67.4	55.7	57.4	48.6
FEMALE	70.1	71.9	62.0	57.4	53.9
1985, Total	67.4	69.3	58.2	58.7	51.1
MALE	64.6	66.7	55.3	55.9	48.7
FEMALE	70.9	72.6	62.6	62.8	55.0
1986, Total	67.1	69.1	57.1	57.3	51.3
MALE	64.3	66.4	54.0	54.4	48.6
FEMALE	70.6	72.3	61.4	61.8	55.6
1987, Total	67.7	69.8	57.8	59.1	49.1
MALE	64.9	67.2	54.1	58.1	45.9
FEMALE	71.2	73.0	63.1	60.4	54.2
1988, Total	67.8	69.9	58.1	57.6	57.0
MALE	65.1	67.5	54.2	55.3	48.3
FEMALE	71.2	73.0	63.7	60.9	55.1
1989, Total	68.2	70.4	57.1	56.9	53.0
MALE	65.3	67.7	54.1	55.7	49.4
FEMALE	71.7	73.6	61.0	58.6	58.4

1 Includes ethnic groups other than white, Hispanic, Black or Native American.
2 Not of Hispanic origin.
3 White of Hispanic origin.

TABLE 2-7

PERCENT OF DEATHS BEFORE EXPECTED YEARS OF LIFE REACHED[1], BY GENDER AND ETHNICITY, ARIZONA, 1980-1989

YEAR/GENDER	ALL ETHNIC GROUPS[2]	WHITE[3]	HISPANIC[4]	BLACK	NATIVE AMERICAN
1980, Total	58.6	56.2	68.0	73.5	75.9
MALE	64.1	61.9	73.2	77.6	77.1
FEMALE	51.0	48.5	60.2	67.1	73.9
1981, Total	58.1	55.7	67.4	72.4	77.2
MALE	64.2	61.7	74.0	77.7	81.1
FEMALE	49.7	47.6	57.2	62.8	70.4
1982, Total	56.0	53.5	66.3	68.1	75.7
MALE	61.9	59.5	73.3	71.4	79.6
FEMALE	48.1	45.8	57.4	62.4	69.3
1983, Total	58.0	55.6	67.4	71.8	78.5
MALE	63.9	61.7	72.8	78.0	80.1
FEMALE	50.2	48.0	59.4	62.1	75.6
1984, Total	57.3	54.7	67.7	73.7	76.0
MALE	62.8	60.5	73.2	75.1	78.0
FEMALE	50.1	47.5	59.7	71.7	72.5
1985, Total	56.4	53.9	68.1	71.2	74.9
MALE	62.7	60.3	73.9	75.9	77.6
FEMALE	48.3	46.0	59.5	64.5	70.7
1986, Total	56.6	54.2	68.6	69.4	74.5
MALE	63.2	60.9	74.8	74.6	77.6
FEMALE	48.1	45.7	60.0	61.2	69.7
1987, Total	55.6	52.8	68.2	68.6	79.9
MALE	62.2	59.5	75.3	71.3	83.9
FEMALE	47.2	44.5	58.7	64.7	73.6
1988, Total	54.7	51.9	67.0	67.5	77.9
MALE	61.2	58.4	73.4	72.6	82.5
FEMALE	46.4	43.8	57.8	60.5	70.9
1989, Total	54.0	51.0	67.8	71.7	74.4
MALE	61.0	58.1	73.6	75.2	79.7
FEMALE	45.6	42.6	60.0	67.0	66.7

1 Based on expected years of life at birth in each year or life expectancy (LE) for all U.S. residents, U.S. Dept. of Health and Human Services: Health United States and Prevention Profile 1989, Table 14.

2 Includes ethnic groups other than white, Hispanic, Black or Native American.

3 Not of Hispanic origin.

4 White of Hispanic origin.

TABLE 2-8

AVERAGE AGE AT DEATH FOR THOSE WHO DIED BEFORE EXPECTED YEARS OF LIFE REACHED[1], BY GENDER AND ETHNICITY, ARIZONA, 1980-1989

Year/Gender	All Ethnic Groups[2]	White[3]	Hispanic[4]	Black	Native American
1980, Total	53.3	55.7	44.3	48.1	39.2
MALE	52.9	55.5	42.3	47.5	38.6
FEMALE	54.0	56.0	47.9	49.2	40.3
1981, Total	53.5	56.1	43.8	45.0	38.2
MALE	52.8	55.6	42.4	46.0	37.6
FEMALE	54.6	57.0	46.6	42.8	39.4
1982, Total	54.4	56.8	46.0	48.0	39.4
MALE	54.0	56.5	44.9	48.2	38.3
FEMALE	55.2	57.3	47.8	47.6	41.4
1983, Total	55.6	57.9	47.0	48.5	40.2
MALE	55.3	57.8	45.9	48.5	39.7
FEMALE	56.1	58.2	48.9	48.5	41.2
1984, Total	55.5	58.0	46.4	48.3	39.6
MALE	55.1	57.8	45.9	49.2	38.4
FEMALE	56.1	58.5	47.2	47.0	41.8
1985, Total	55.2	57.5	46.6	48.8	40.1
MALE	54.3	56.7	45.8	47.3	38.7
FEMALE	56.7	58.8	47.8	51.0	42.3
1986, Total	54.7	57.2	45.2	45.5	39.8
MALE	53.9	56.5	44.6	44.5	38.1
FEMALE	56.0	58.3	46.2	47.5	42.7
1987, Total	55.2	57.7	46.1	47.9	40.3
MALE	54.4	57.1	44.8	48.0	38.7
FEMALE	56.5	58.7	48.4	47.7	43.3
1988, Total	54.9	57.5	45.5	45.5	41.5
MALE	54.2	57.0	43.9	45.4	40.8
FEMALE	56.0	58.3	48.5	45.7	42.9
1989, Total	55.2	57.9	44.8	46.6	42.3
MALE	54.4	57.2	44.2	46.8	40.5
FEMALE	56.6	59.2	45.9	46.3	45.5

1 Based on expected years of life at birth in each year or life expectancy (LE) for all U.S. residents, U.S. Dept. of Health and Human Services: Health United States and Prevention Profile 1989, Table 14.

2 Includes ethnic groups other than white, Hispanic, Black or Native American.

3 Not of Hispanic origin.

4 White of Hispanic origin.

TABLE 2-9

AVERAGE AGE AT DEATH AND PERCENT DEATHS BEFORE EXPECTED YEARS OF LIFE REACHED[1] FOR THE TEN LEADING CAUSES OF MORTALITY BY GENDER, ETHNICITY AND AREA, ARIZONA, 1989

	STATEWIDE			URBAN[2]		RURAL		WHITE		HISPANIC		BLACK		NATIVE AMERICAN	
CAUSE OF DEATH	Both Genders	M	F	M	F	M	F	M	F	M	F	M	F	M	F
DISEASES OF HEART															
Average age	74.8	72.1	78.0	72.4	78.6	71.3	75.8	72.6	78.6	68.4	74.4	66.5	72.0	67.2	70.1
% deaths below LE[4]	43.4	53.2	31.7	51.8	29.8	57.1	38.8	52.0	29.7	61.7	43.7	71.0	51.0	59.6	55.4
MALIGNANT NEOPLASMS															
Average age	69.0	69.3	68.8	69.0	69.2	69.8	67.2	69.7	69.3	65.0	65.3	67.1	65.1	68.0	64.8
% deaths below LE	63.9	64.2	63.5	64.1	61.8	64.6	69.8	63.7	63.1	68.6	65.2	73.4	76.5	61.5	62.0
UNINTENTIONAL INJURIES															
Average age	40.5	37.5	47.9	37.4	51.0	37.8	41.3	39.9	53.5	32.3	33.9	31.9	21.9	35.6	37.2
% deaths below LE	86.4	90.8	75.2	90.6	70.1	91.2	86.6	87.8	67.3	96.2	96.0	100.0	100.0	94.0	93.0
MOTOR VEHICLE															
Average age	37.0	35.3	41.3	35.4	44.1	35.0	36.8	38.2	45.1	31.3	33.9	29.7	32.0	30.6	33.1
% deaths below LE	92.2	93.5	88.9	93.5	86.3	93.5	93.2	90.9	83.4	97.4	100.0	100.0	100.0	97.3	100.0
OTHER INJURY															
Average age	44.6	40.2	55.9	39.4	57.7	42.1	50.0	41.8	62.3	33.6	34.0	33.6	10.2	43.4	43.1
% deaths below LE	79.5	87.6	58.8	87.6	54.1	87.7	73.9	84.5	50.3	94.6	86.7	100.0	100.0	88.7	82.6
CEREBROVASCULAR DISEASE															
Average Age	77.5	75.3	79.1	76.3	80.1	72.4	75.8	76.1	79.6	71.8	75.2	69.2	76.3	66.7	75.7
% deaths below LE	31.2	39.2	25.2	36.1	22.0	48.0	35.8	37.0	24.1	54.0	30.6	40.9	32.0	57.1	50.0
CHRONIC OBSTRUCTIVE PULMONARY DISEASE															
Average age	72.9	72.9	73.0	73.2	73.0	72.1	72.7	72.9	73.1	76.4	71.6	68.1	73.2	62.4	50.0
% deaths below LE	53.4	53.5	53.2	51.8	52.3	58.0	56.7	53.7	52.7	46.2	60.9	55.6	62.5	60.0	100.0
INFLUENZA AND PNEUMONIA															
Average age	77.1	74.0	80.1	74.7	80.9	72.1	77.2	76.8	81.8	63.9	70.1	60.3	58.8	61.4	67.2
% deaths below LE	28.9	36.7	21.4	34.9	19.2	41.6	29.2	32.5	18.9	45.5	34.4	71.4	60.0	57.1	41.4
SUICIDE															
Average age	45.7	46.2	43.7	45.5	42.7	48.0	46.9	48.4	45.9	38.8	32.9	25.3	24.2	29.0	20.0
% deaths below LE	88.2	86.7	95.0	87.1	96.8	85.6	88.9	85.3	94.2	89.6	100.0	100.0	100.0	100.0	100.0
DIABETES															
Average age	68.7	68.4	69.0	68.3	69.2	68.6	68.6	69.5	68.9	65.4	67.5	67.2	74.8	67.4	69.7
% deaths below LE	62.8	65.2	60.6	64.4	61.2	67.1	59.2	61.7	58.0	71.7	68.6	80.0	58.3	72.0	61.5
INFECTIOUS PARASITIC DISEASES[5]															
Average age	55.2	50.2	65.7	48.5	65.0	57.8	67.9	50.9	68.7	50.4	54.6	45.4	54.0	46.2	53.5
% deaths below LE	73.0	82.9	52.2	85.7	52.9	70.0	50.0	83.3	48.3	81.5	64.7	81.0	57.1	84.2	76.9
ALCOHOLISM															
Average age	55.0	54.2	57.1	54.9	60.5	52.8	50.3	56.7	60.9	55.0	49.3	51.4	51.0	46.1	49.8
% deaths below LE	93.1	94.6	89.2	94.3	83.9	95.1	100.0	92.4	85.5	97.6	100.0	100.0	100.0	97.9	96.0
TOTAL, ALL CAUSES															
Average age	68.2	65.3	71.7	65.6	72.1	64.2	68.6	67.7	73.6	54.1	61.0	55.7	58.6	49.4	58.4
% deaths below LE	54.0	61.0	45.6	59.8	44.1	64.5	52.5	58.1	42.6	73.6	60.0	75.2	67.0	79.7	66.7

[1] Based on expected years of life at birth in each year or life expectancy (LE) for all U.S. residents, U.S. Dept. of Health and Human Services: Health United States and Prevention Profile 1989, Table 14.
[2] Maricopa and Pima counties comprise Arizona's urban areas while the remaining counties represent rural areas.
[3] Not of Hispanic origin.
[4] Percent deaths before expected years of life (LE) reached.
[5] Includes data for the category numbers 042-044 (HIV infection), following the redefinition of the National Center for Health Statistics in January 1987.

FIGURE 4.
AGE-ADJUSTED MORTALITY RATES FOR ALL CAUSES, ARIZONA AND UNITED STATES, 1980-1989

FIGURE 5.
AGE-ADJUSTED MORTALITY RATES FOR DISEASES OF HEART, ARIZONA AND UNITED STATES, 1980-1989

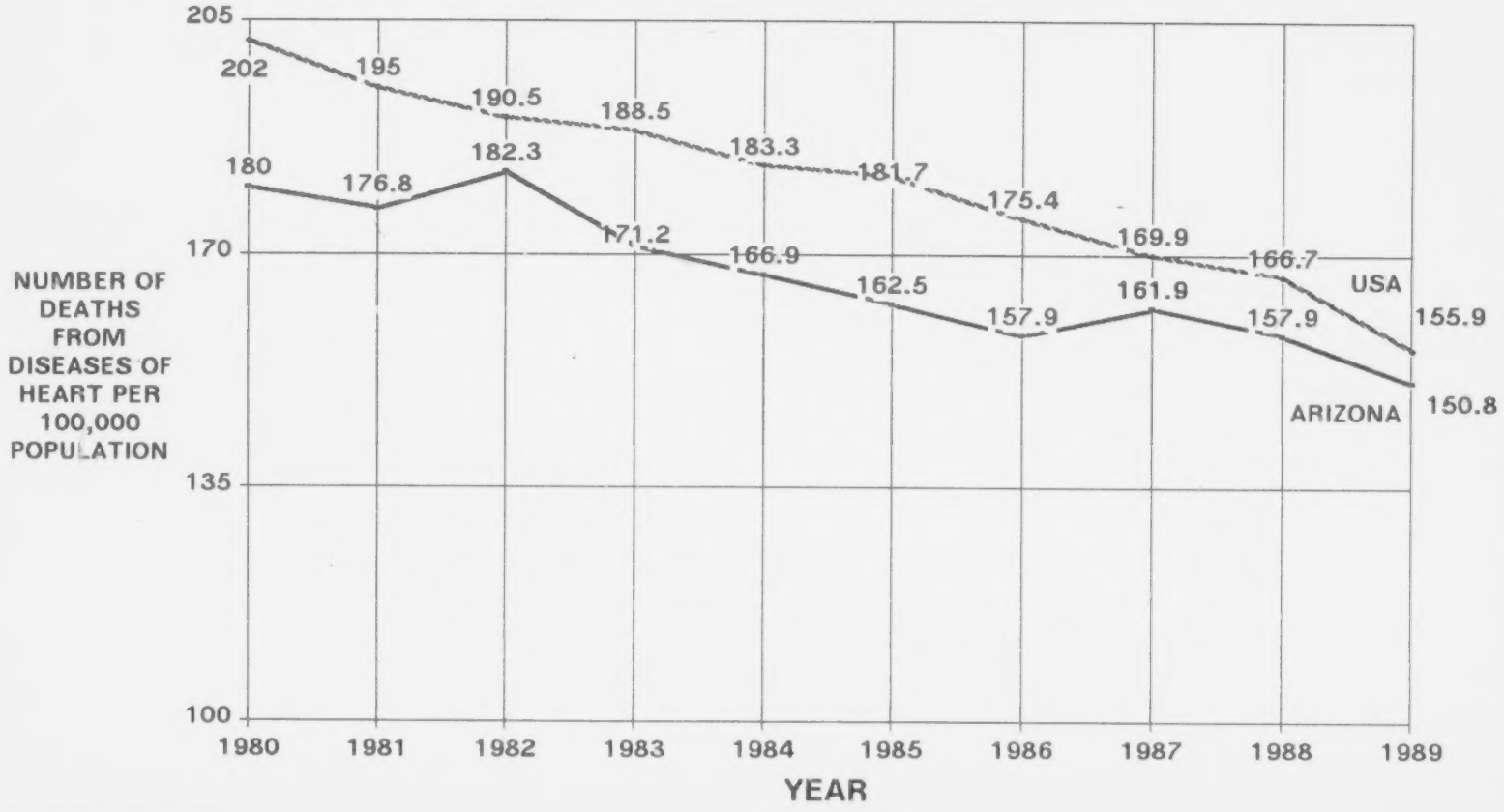


FIGURE 6.
AGE-ADJUSTED MORTALITY RATES FOR MALIGNANT NEOPLASMS, ARIZONA AND UNITED STATES, 1980-1989

FIGURE 7.
AGE-ADJUSTED MORTALITY RATES FOR UNINTENTIONAL INJURIES ARIZONA AND UNITED STATES, 1980-1989

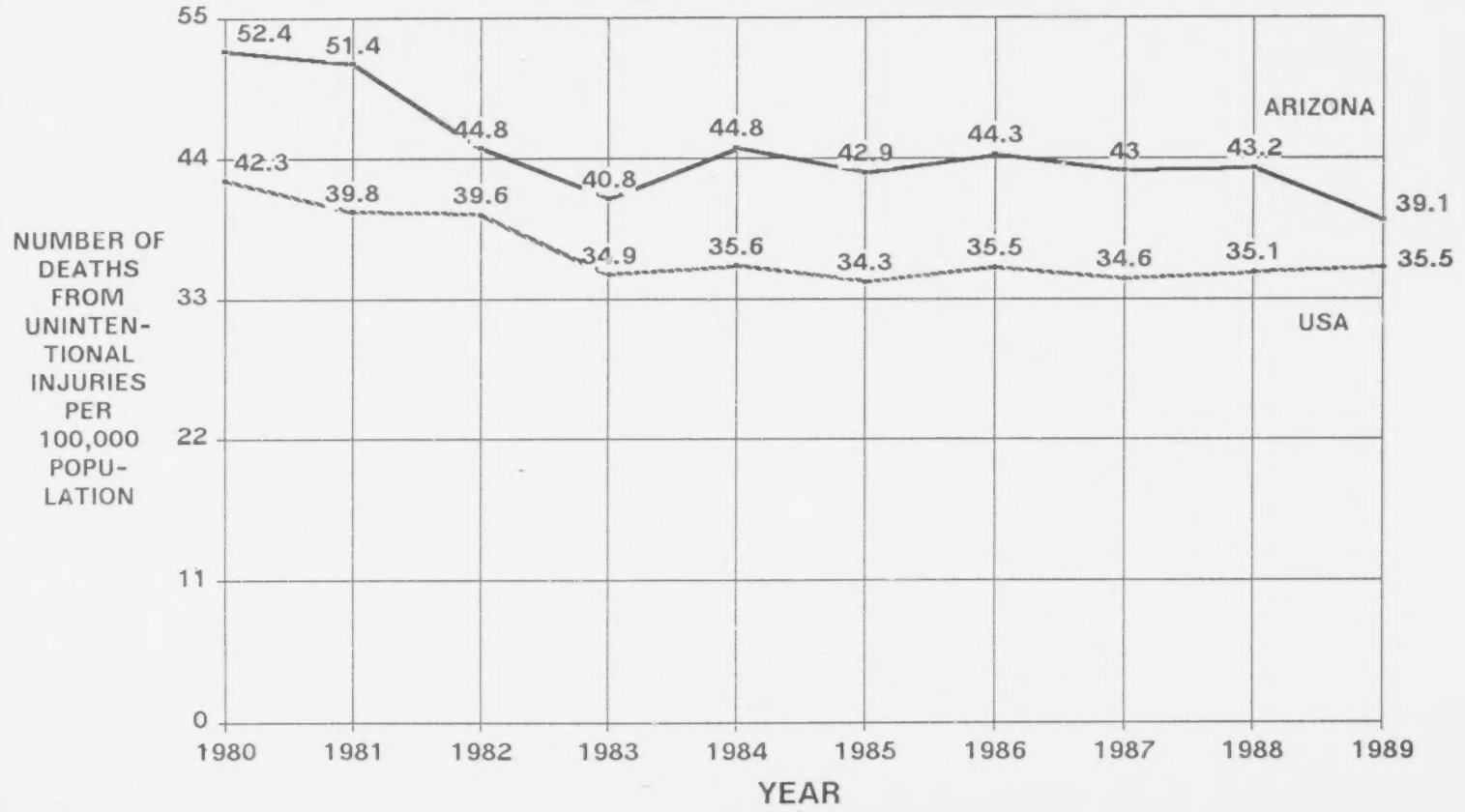


FIGURE 8.
AGE-ADJUSTED MORTALITY RATES FOR MOTOR VEHICLE-RELATED INJURIES, ARIZONA AND UNITED STATES, 1980-1989

FIGURE 9.
AGE-ADJUSTED MORTALITY RATES FOR INJURIES NOT RELATED TO MOTOR VEHICLES, ARIZONA AND UNITED STATES, 1980-1989

FIGURE 10.
AGE-ADJUSTED MORTALITY RATES FOR CEREBROVASCULAR DISEASE, ARIZONA AND UNITED STATES, 1980-1989

FIGURE 11.
AGE-ADJUSTED MORTALITY RATES FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE, ARIZONA AND UNITED STATES, 1980-1989

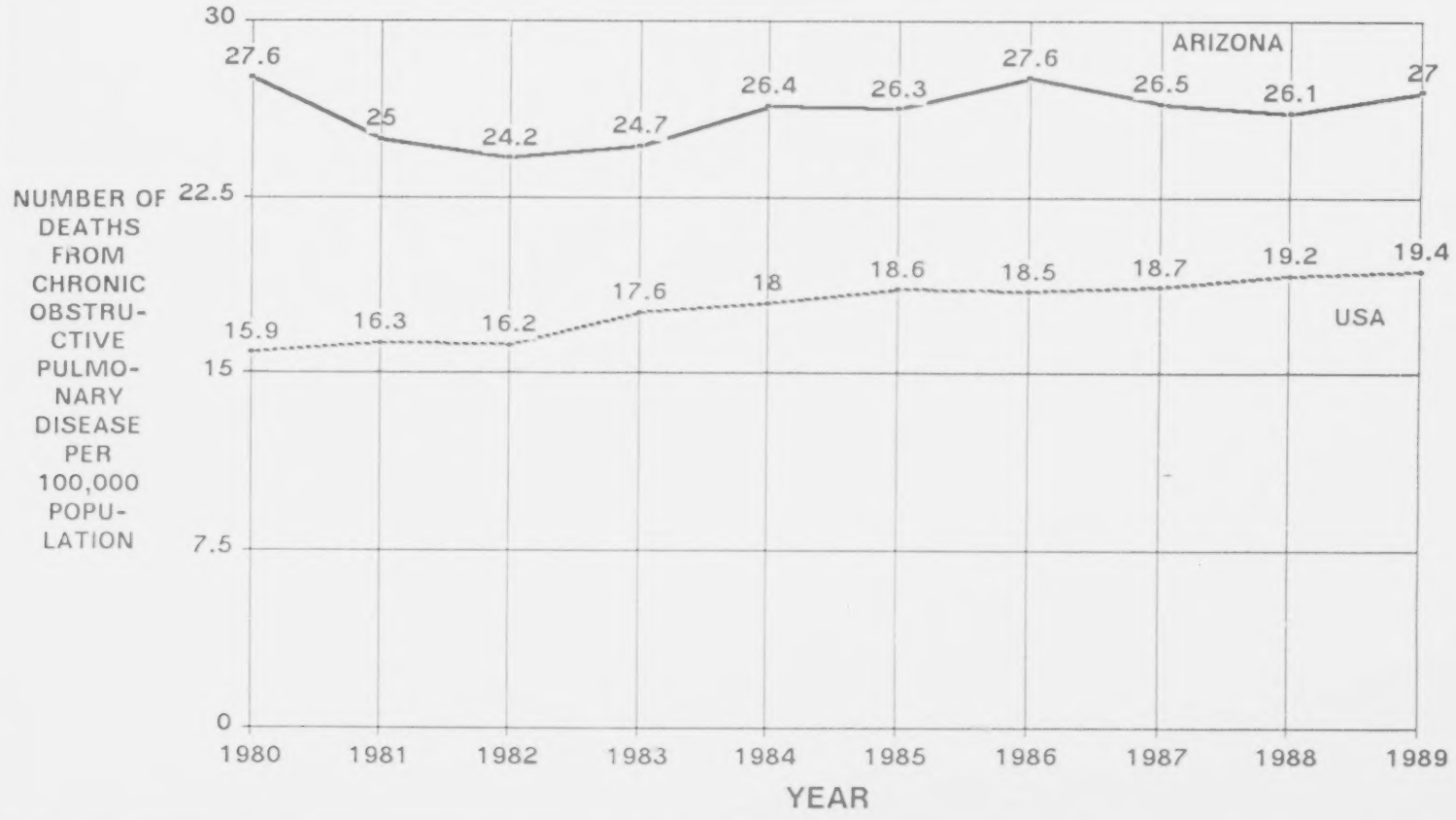


FIGURE 12.
AGE-ADJUSTED MORTALITY RATES FOR PNEUMONIA AND INFLUENZA, ARIZONA AND UNITED STATES, 1980 - 1989

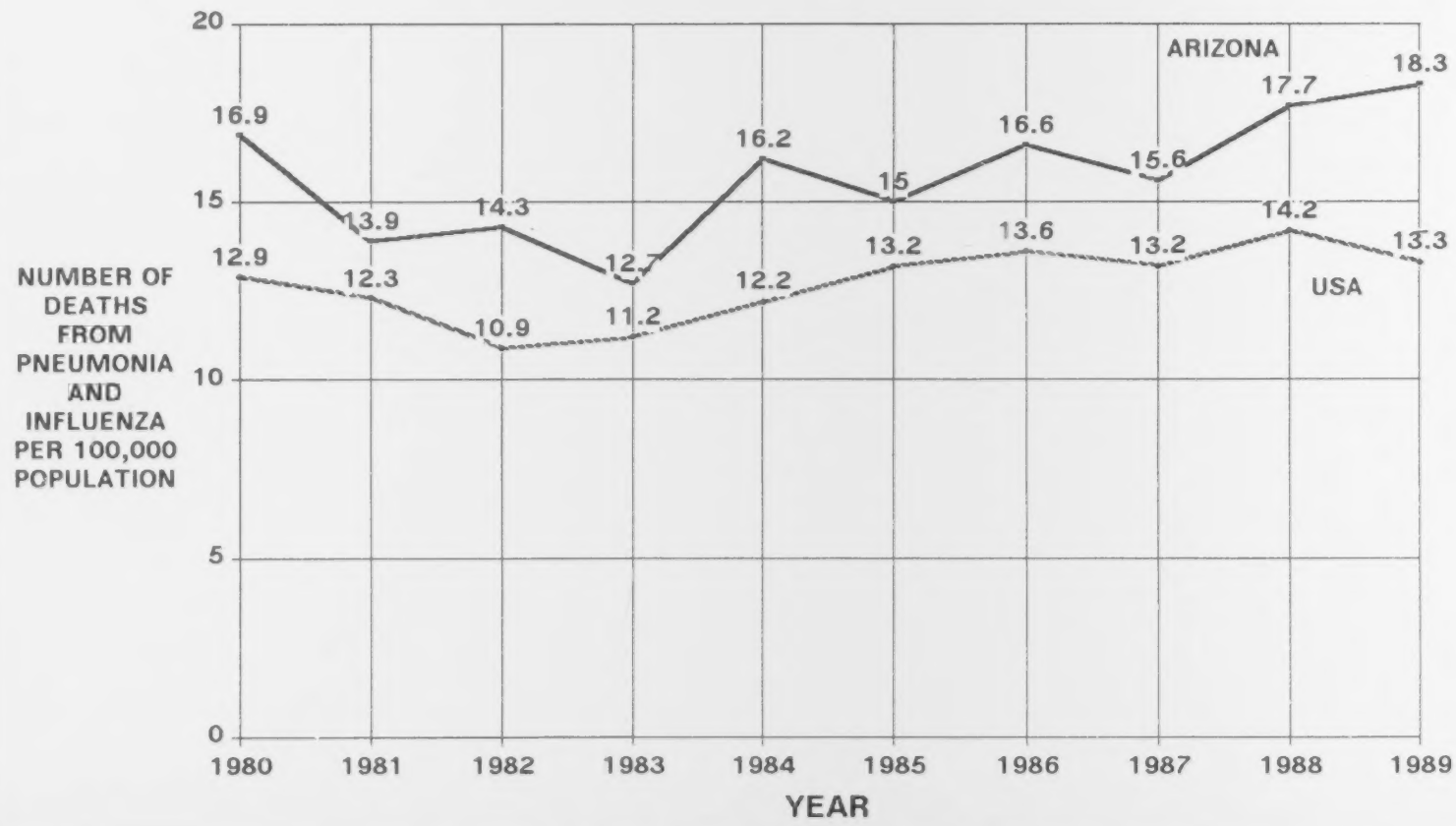


FIGURE 13.
AGE-ADJUSTED MORTALITY RATES FOR SUICIDE, ARIZONA AND UNITED STATES, 1980-1989

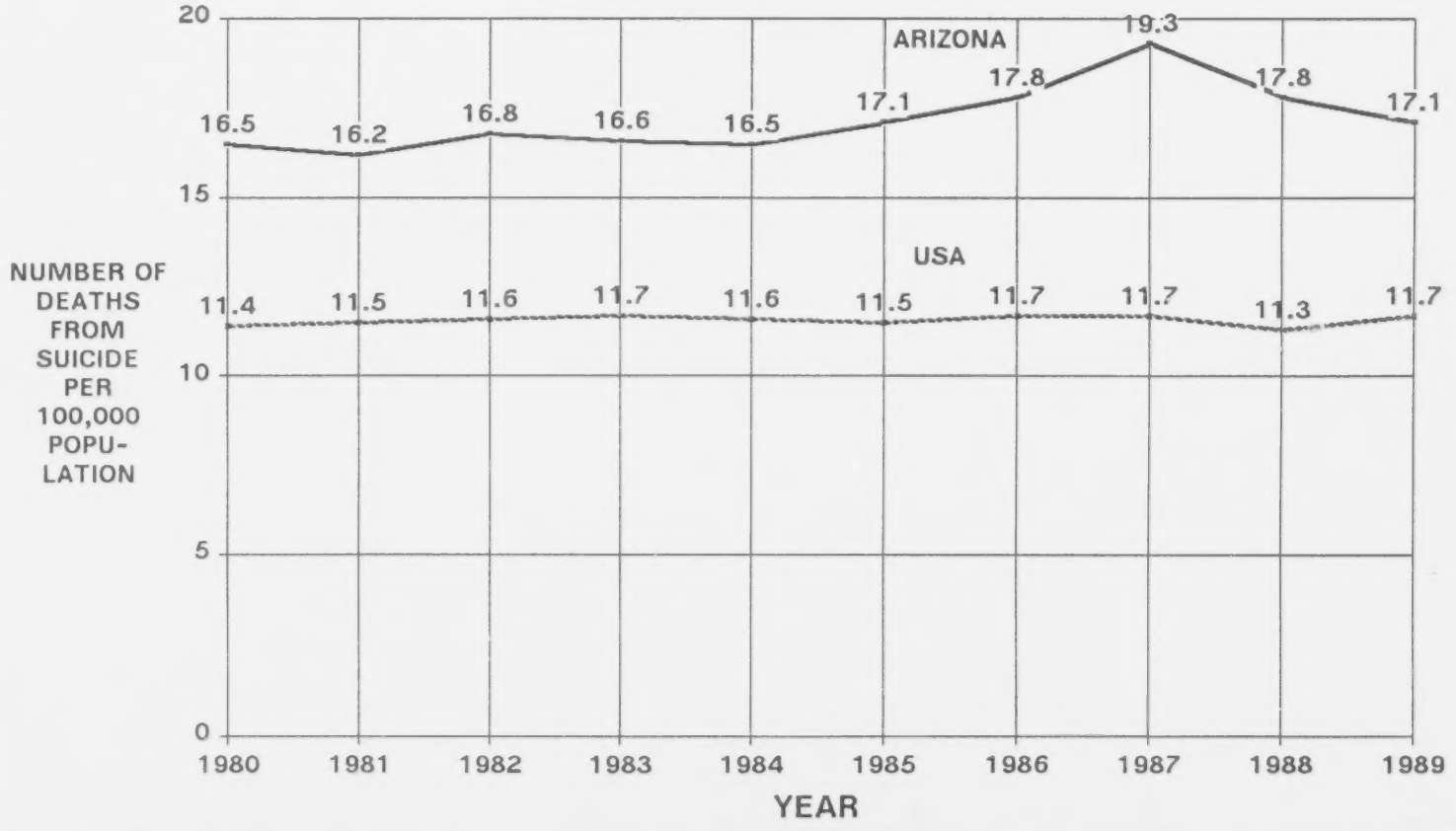


FIGURE 14.
AGE-ADJUSTED MORTALITY RATES FOR DIABETES MELLITUS, ARIZONA AND UNITED STATES, 1980-1989

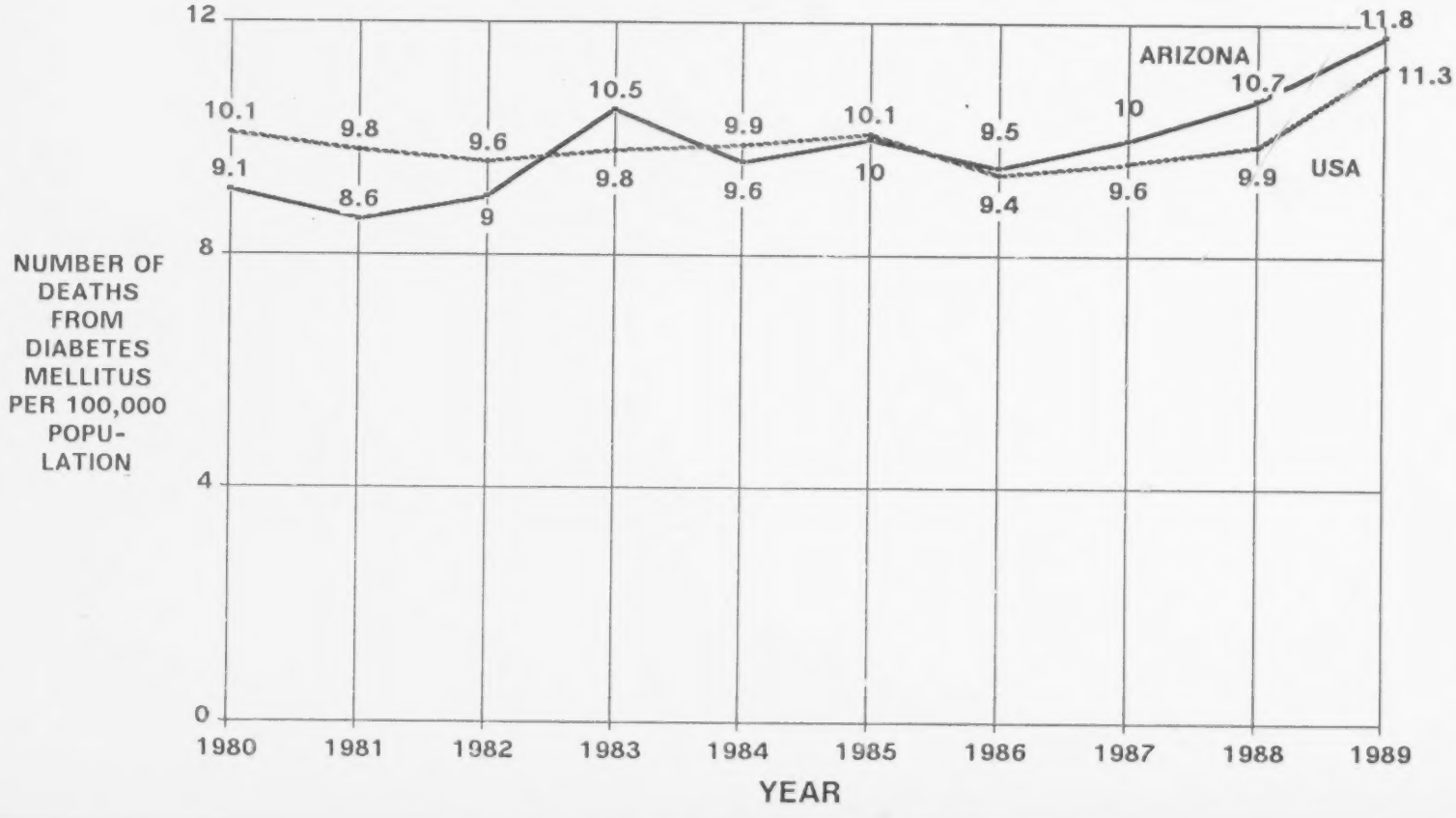
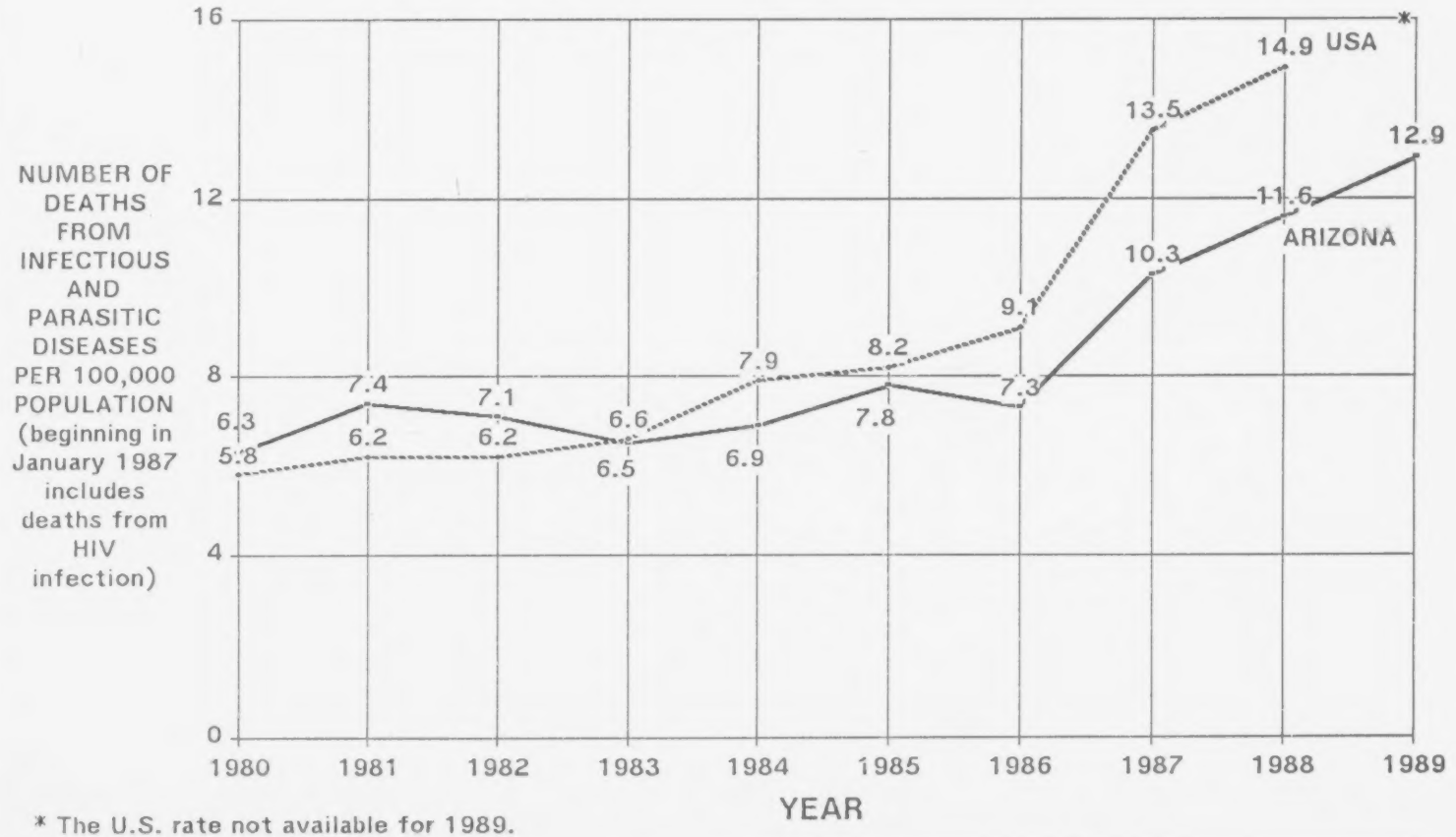


FIGURE 15.
AGE-ADJUSTED MORTALITY RATES FOR INFECTIOUS AND PARASITIC DISEASES, ARIZONA AND UNITED STATES, 1980-1989



* The U.S. rate not available for 1989.

AGE-SPECIFIC MORTALITY

Infant Mortality

In 1989, 613 infants died before reaching their first birthday for an infant mortality rate (IMR) of 9.1 deaths per 1,000 live births in that year (Table 3-1). The 1989 infant mortality rate was the lowest of the decade and represented a 27 percent reduction from the 1980 rate. However, 93 percent of the 1980-89 reduction did, in fact, occur earlier in the decade, specifically from 1980 to 1982. The IMR for each year after 1982 until 1988 was higher than the 1982 IMR. Nonetheless, the drop in IMR from 1988 to 1989 did end the stagnation in infant mortality during the 1983-88 period. Moreover, the 1989 IMR failed to meet the 1990 health objective of 9.0 by a mere 1 percent.

Infants in Apache, Cochise, Coconino, Gila, Pima and Yuma counties died in 1989 at rates below the 1990 objective. The 1989 IMR for Pima county only also was the lowest of the decade. However, annual IMRs for each county, especially the smaller rural counties, vary considerably. Thus, achievement with regard to the 1990 objective may reverse in future years for several counties. One is more confident about the status of Apache and Cochise counties relative to the 1990 objective because IMRs in these counties were below the objective for at least three consecutive years.

Clearly, 1989 IMRs in the majority of counties were greater than the 1990 objective. The largest exceedance was for Mohave county (89 percent), followed by Navajo county (73 percent), Santa Cruz county (27 percent), Graham county (24 percent) and Pinal county (22 percent). Santa Cruz county had the largest increase in IMR in the later years of the decade. While its annual IMR were higher in every year after 1980, the yearly rates for 1987 to 1989 were elevated at least 90 percent over the 1980 rate.

The 1989 IMRs for Yavapai, Maricopa and LaPaz counties exceeded the 1990 objective by no more than 7 percent. Infant mortality for Maricopa county declined from a rate of 10 in both 1987 and 1988 to a rate of 9.2 in 1989, equalling the 1983 rate. No infant died and 104 babies were born in Greenlee county in 1989.

Neonatal and postneonatal mortality.

Beginning in 1982, annual neonatal (i.e., before 28 days of age) mortality rates (NMRs) have been at least 29 percent lower than the 1980 NMR (Table 3-2). Arizona and the United States differed little in NMRs in 1980, but in 1989 the Arizona NMR was 11 percent lower than the national rate. The decline in NMR from 1980 to 1989 was almost twice as great for the metropolitan (i.e., Maricopa and Pima) counties than for the non-metropolitan (i.e., all other) counties[a] (37 and 20 percent respectively). The drop in NMR for the metropolitan counties from 1988 to 1989, resulting in the decade's lowest rate, halted the trend of increasing NMR that began in 1985. The 1989 NMR for the non-metropolitan counties, while lower than the 1980 rate, was still greater than each annual rate during the 1985-1988 period.

Postneonatal (i.e., 28 to 364 days of age) deaths accounted for a larger share of infant mortality in the last five than the first five years of the decade for both Arizona (39.7 and 37.5 percent respectively) and the United States (35.7 and 33.8 percent respectively) (Table 3-2). During the decade, postneonatal deaths on average contributed more to infant mortality in Arizona than in the U.S. (38.6 and 34.7 percent respectively).

Relative to the metropolitan counties, the non-metropolitan counties had a ten-year (1980-1989) average[b] postneonatal mortality rate (PNMR) that was 44 percent greater, a proportional contribution of postneonatal deaths to infant mortality 33 percent greater

a Annual numbers of neonatal and postneonatal deaths are small in most rural counties and rates thus have low reliability. Grouping the counties gave more reliable rates.

b A ten-year average usually had sufficient numbers for a reasonably reliable rate for each county. Decade-comparisons among counties are thus more reliable and valid.

(35.3 and 46.8 percent respectively), and a ten-year average NMR 11 percent lower (Table 3-3). Based on the ten-year averages for the decade, the NMR exceeded the PNMR for both metropolitan and non-metropolitan counties. However, the relation between NMR and PNMR was reversed for Apache, Coconino and Navajo counties.

The correlation between counties' rank-order on ten-year average NMR and rank-order on PNMR is not significant ($r = -.17$, $p > .50$). In NMR, the five best counties in rank-order from lowest to highest rate were Apache, Yuma, Coconino, Santa Cruz, and a tie among four counties (Mohave, Pinal, Pima and Yavapai) for fifth place (Table 3-3). The five worst counties rank-ordered from highest to lowest NMR were Graham, Greenlee, LaPaz, and Maricopa and Cochise tied for 12th and 11th. In sharp contrast, Greenlee, Pima, Cochise, Santa Cruz and Maricopa counties had the first, second, third, fourth and fifth lowest or best PNMRs respectively. Navajo county had the highest or worst PNMR, followed by LaPaz, Apache, Mohave and Coconino counties.

As expected, counties' rank-order on either NMR or PNMR is correlated significantly with their rank-order on IMR. However, PNMR is related more strongly to IMR ($r = .73$, $p < .001$) than is NMR ($r = .51$, $p < .03$). In other words, predicting a county's average rank for the decade on IMR is twice as accurate if its ten-year standing on PNMR rather than NMR is used as the predictor.

Cause-specific mortality of infants.

Mortality rates for respiratory distress syndrome (RDS) declined 42 percent from 1980 to 1982, remained relatively stable until 1987, and then declined further from 1987 to 1989 (Table 3-4). The 67 percent reduction in the RDS mortality rate from 1980 to 1989 was the largest decline among the leading causes of infant death and made the 1989 rate the lowest of the decade. No other leading cause reached its lowest annual mortality level of the decade in 1989.

Disorders related to low birthweight/short gestation (LBW/SG) exacted its highest mortality toll on infants in 1987 (1.9) and its lowest mortality toll (0.6) in 1982. The 1989 death rate for disorders related to LBW/SG represented a 58 percent reduction from the 1987 high. Mortality rates for both RDS and disorders related to LBW/SG exceeded the mortality rate for other respiratory conditions in six of the nine years prior to 1989. In 1989, deaths from other respiratory conditions occurred at a 12 percent higher rate than deaths from disorders related to LBW/SG and a 125 percent higher rate than deaths from RDS. The 1989 death rate for other respiratory conditions exceeded the rate in eight prior years, including 1980.

Temporal trends in annual death rates for both maternal complications and other perinatal conditions suggest that the percent reduction in rate from 1980 to 1989 does not represent a true improvement from the earlier to the later part of the decade. Although the 1989 death rate for maternal complications was lower than the 1980 rate, it was not lower than annual rates from 1981 to 1988. Death rates for other perinatal conditions annually declined from 1980 to 1984 by 73 percent. Compared to 1984, death rates from this cause were higher in four of the five following years, including 1989.

In contrast, annual death rates for congenital anomalies were usually lower from 1986 to 1989 than from 1980 to 1985, suggesting a definite reduction in the risk of infant death from this cause from decade start to end. Respiratory system and the category of other anomalies, the two most prevalent subcategories in every year, appear to account for the decline in congenital anomaly death rates. Both subcategories had a 10 percent lower representation among deaths from all anomalies during 1985-1989 than during 1980-1984. In comparison, during 1985-89 relative to 1980-84, the proportional contributions of circulatory system anomalies and of central nervous system anomalies to deaths from the overall cause increased 74 percent and remained relatively stable respectively.

Mortality rates from sudden infant death syndrome (SIDS) were clearly higher annually from 1986 to 1989 than from 1980 to 1985. SIDS posed a greater mortality

threat to babies at the end than the start of the decade. A similar trend applied to deaths from accidents/adverse events. Three annual rates from 1985 to 1989, including the 1989 rate, were higher than any annual rate from 1980 to 1984. Contrastingly, pneumonia/influenza was a lower mortality risk for infants in the last than the first half of the decade. The annual rate of death from this cause was a constant 0.2/1,000 from 1985 to 1989; only one annual death rate from 1980 to 1984 was this low.

Mortality by infant ethnicity and gender.

Mortality of white non-Hispanic infants declined yearly a total of 28 percent from 1980 to 1984, reaching its lowest level (8.8 per 1,000) of the decade (Table 3-5). After 1984, annual IMRs for white non-Hispanic babies were higher and finally stabilized at a rate of 9.0 during the last three years. In other words, all progress in reducing mortality among white non-Hispanic infants occurred in the first half of the decade and little improvement has occurred since.

Hispanic infants began and ended the decade with a lower mortality rate than white non-Hispanic infants (Table 3-5). The temporal trends in annual IMRs for the two ethnic groups were similar, with improvement in infants' survival chances during their first year of life largely achieved in the first half of the decade. Since 1985, IMRs for Hispanic infants were 8.0 per 1,000 or lower in every year (except 1988), including 1989.

After three successive yearly declines totaling 36 percent, the Native American IMR reached its lowest level of the decade in 1983. This percent reduction in IMR from 1980 to 1983 equalled the percent change between 1980 and 1989. Thus, after some increases in IMR after 1983, by 1989 the IMR for Native Americans had almost returned to the level of an improvement that occurred earlier in the decade, reflecting better survival.

The temporal trend in mortality differed for Black infants compared to the other ethnic groups. Their survival chances in 1989 were worse than in 1980, with the annual IMRs from 1987 to 1989 consistently exceeding the rates in 1980, 1982, 1985 and 1986. However, the five-year average mortality rate for Black infants was lower in the last than the first half of the decade (15.9 and 19.0 per 1,000 respectively).

Nevertheless, the gap between Black infant mortality and the infant mortality for each of the other ethnic groups widened considerably from the start to end of the decade. In 1980, Black babies had a 25 percent greater chance to die than white non-Hispanic infants, a 55 percent greater chance than Hispanic infants and a 6 percent lower chance than Native American infants. The 1989 IMR for Black infants was the highest among the ethnic groups. It exceeded the white non-Hispanic IMR by 94 percent (nearly a fourfold increase in the gap), the Hispanic IMR by 219 percent (also a fourfold increase in the gap) and the Native American IMR by 67 percent (a 12-fold increase in gap).

Both male and female infants who were either white non-Hispanic or Native American had better survival chances in the years ending than the years starting the decade. However, white non-Hispanic baby girls compared to boys had lower mortality rates in nine of the years of the decade and maintained this relative position in 1989, becoming the ethnic-gender subgroup of infants with the best survival chances at the decade's end. In contrast, relative survival chances reversed for Native American baby girls compared to boys in 1988 and 1989, with higher rather than lower mortality rates.

The same reversal between the two genders at the decade's end occurred for Black and Hispanic infants. Hispanic girls infants clearly had worse mortality rates in the last half of the decade, or the decline in Hispanic infant death rates was largely confined to boys. Successive annual increases in mortality rates of Black infant girls began in 1987, with the 1989 IMR nearly twice as great as the 1985 and 1986 IMRs. Compared to infant boys of the same ethnic group, Hispanic, Black and Native American infant girls had at least an 11 percent greater chance to die in 1989 before their first birthday.

Neonatal and postneonatal mortality by infant's ethnicity.

Neonatal mortality rates improved during the decade for infants who were either white non-Hispanic, Hispanic or Black (Table 3-6). The improvement was greatest for Hispanic infants, with the five-year average NMR for 1985-89 22 percent lower than the five-year average NMR for 1980-84 (NMRs of 4.6 and 5.9 respectively). The decline in five-year average neonatal mortality for the last relative to first half of the decade was smallest for Black infants (8 percent) and intermediate for white non-Hispanic infants (12 percent). (The 1980-84 and 1985-89 average rates were 11.7 and 10.8 for Black infants and 6.8 and 6.0 for white non-Hispanic infants.) Native American neonates had a 6 percent greater chance to die in the last than first half of the decade (NMRs of 5.5 and 5.2 respectively).

In contrast, Native American rates of postneonatal mortality significantly declined. The 1985-89 five-year average PNMR was 24 percent lower than the 1980-84 average PNMR. Moreover, the 1989 rate was the lowest of the decade. The improvement in PNMR for Black infants was less clear but also substantial. The five-year average rate dropped 30 percent from 7.3 for 1980-84 to 5.1 for 1985-89. However, the 1989 PNMR for Black infants was greater than the rates of eight earlier years, including 1980.

The opposite temporal trend in postneonatal mortality occurred for Hispanic infants, with the 1985-89 average rate 39 percent higher than the 1980-84 average rate (3.9 and 2.8 respectively). The 1989 PNMR exceeded the rates in five prior years, including 1980.

The relative status among the ethnic groups in neonatal and postneonatal mortality during the first and last half of the decade was determined by ranking the groups on their NMRs and PNMRs in each year and calculating the average half-decade rank. The relative standing of the four ethnic groups on neonatal mortality did not change and became more distinct from the first to last half of the decade. On average, neonatal mortality rates were best for Hispanic infants. Native American infants were ranked second in neonatal mortality, white non-Hispanic infants ranked third and Black infants ranked fourth or worst.

The ethnic groups did change in average relative ranking on postneonatal mortality from the first to last half of the decade. Hispanic infants began the decade with the best postneonatal mortality, but became second to white non-Hispanic infants as the decade closed. The average rankings for Black and Native American infants differed little in the beginning half of the decade, but by the closing half Black infants clearly ranked third and Native American infants ranked fourth or worst in postneonatal mortality.

TABLE 3-1

INFANT MORTALITY RATES[1] BY COUNTY OF RESIDENCE,
ARIZONA AND UNITED STATES, 1980 - 1989

COUNTY	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent Change From 1980
U.S.[2]	12.6	11.9	11.5	11.2	10.8	10.6	10.4	10.0	9.9	9.7	-23.0
ARIZONA	12.4	11.6	9.3	9.6	9.5	9.6	9.4	9.4	9.7	9.1	-26.6
Apache	14.1	14.9	11.4	11.2	13.8	11.9	9.1	8.6	5.3	7.3	-48.2
Cochise	12.1	13.4	9.0	12.8	14.2	9.6	5.2	6.8	8.5	6.9	-43.0
Coconino	10.9	11.5	9.0	12.2	8.8	10.8	9.8	7.5	11.2	8.8	-19.3
Gila	17.0	6.6	16.0	7.3	4.5	7.8	12.8	5.3	10.6	4.6	-72.9
Graham	15.6	27.5	8.5	6.9	15.7	9.8	12.7	9.0	7.2	11.2	-28.2
Greenlee	18.3	3.3	19.5	-	10.3	18.6	9.4	-	18.0	-	-100.0
La Paz	NA	NA	NA	33.9	5.1	25.6	-	5.1	9.3	9.2	NA
Maricopa	13.4	12.0	9.3	9.2	8.9	9.4	9.6	10.0	10.0	9.2	-31.3
Mohave	20.7	9.0	12.4	9.7	8.1	7.2	10.3	8.5	12.2	17.0	-18.0
Navajo	14.2	16.0	9.6	12.0	9.7	13.7	6.3	15.6	10.7	15.6	+9.9
Pima	8.1	9.2	8.3	9.7	9.9	9.1	9.0	7.7	9.3	7.2	-11.1
Pinal	9.2	9.0	9.8	9.1	14.6	8.8	13.1	8.9	7.2	11.0	+19.6
Santa Cruz	6.0	9.6	6.1	6.6	7.8	7.6	7.9	12.8	12.0	11.4	+90.0
Yavapai	11.8	15.0	9.4	10.7	11.0	8.3	11.5	9.4	10.1	9.6	-18.5
Yuma	14.6	11.3	8.4	8.3	6.9	9.7	6.1	9.1	7.6	8.6	-41.1

[1] Per 1,000 live births.
[2] U.S. data furnished by the National Center for Health Statistics; 1989 data are provisional.

TABLE 3-2

INFANT, NEONATAL AND POSTNEONATAL MORTALITY RATES AND PERCENT POSTNEONATAL DEATHS, UNITED STATES, ARIZONA AND METROPOLITAN/NON METROPOLITAN COUNTIES OF ARIZONA, 1980 - 1989

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent Change From 1980
UNITED STATES											
Infant mortality[1]	12.6	11.9	11.5	11.2	10.8	10.6	10.4	10.0	9.9	9.7	-23.0
Neonatal mortality[1]	8.4	7.9	7.7	7.3	6.9	6.9	6.7	6.5	6.4	6.2	-26.2
Postneonatal mortality[1]	4.2	4.0	3.8	3.9	3.9	3.7	3.7	3.5	3.5	3.6	-14.3
Percent postneonatal deaths[2]	33.3	33.6	33.0	33.0	36.1	34.9	35.6	35.5	36.0	36.7	+10.2
ARIZONA, STATEWIDE TOTAL											
Infant mortality[1]	12.4	11.6	9.3	9.6	9.5	9.6	9.4	9.4	9.7	9.1	-26.6
Neonatal mortality[1]	8.3	7.4	5.8	5.9	5.5	5.9	5.4	5.9	5.9	5.5	-33.7
Postneonatal mortality[1]	4.1	4.2	3.5	3.7	4.0	3.8	4.0	3.5	3.8	3.6	-12.2
Percent postneonatal deaths[2]	33.1	36.2	37.6	38.5	42.1	39.6	42.6	37.1	39.2	40.0	+20.8
METROPOLITAN COUNTIES											
Infant mortality[1]	12.0	11.3	9.0	9.2	9.1	9.4	9.5	9.5	9.9	8.8	-26.7
Neonatal mortality[1]	8.6	7.7	5.8	5.8	5.7	6.0	5.9	6.1	6.3	5.4	-37.2
Postneonatal mortality[1]	3.4	3.6	3.2	3.4	3.4	3.4	3.6	3.4	3.6	3.4	0.0
Percent postneonatal deaths[2]	28.4	32.1	35.2	37.0	37.0	35.8	37.8	35.8	36.4	39.1	+37.7
NON-METROPOLITAN COUNTIES											
Infant mortality[1]	13.2	12.5	10.1	10.6	10.7	10.4	9.0	9.3	9.1	10.2	-22.7
Neonatal mortality[1]	7.4	6.7	5.6	6.2	5.0	5.4	4.1	5.5	4.6	5.9	-20.3
Postneonatal mortality[1]	5.8	5.8	4.4	4.4	5.7	5.0	4.9	3.8	4.5	4.3	-25.9
Percent postneonatal deaths[2]	43.9	46.4	44.0	41.3	53.5	47.8	54.8	41.1	49.3	42.4	-3.4

[1] Rates per 1,000 live births. The U.S. rates are from the National Center for Health Statistics: Births, Marriages, Divorces and Deaths for 1989, April 4, 1990.

[2] Total infant mortality = 100 percent.

TABLE 3-3

NUMBER AND RATES[1] OF NEONATAL, POSTNEONATAL, AND TOTAL INFANT DEATHS BY METROPOLITAN AND NON-METROPOLITAN COUNTIES IN ARIZONA, 1980, 1989 AND TEN-YEAR TOTAL, 1980-1989

Region/County of Residence	NUMBER OF INFANT DEATHS									MORTALITY RATES								
	TOTAL INFANT			NEONATAL			POSTNEONATAL			TOTAL INFANT			NEONATAL			POSTNEONATAL		
	1980	1989	TEN-YEAR TOTAL 1980-89	1980	1989	TEN-YEAR TOTAL 1980-89	1980	1989	TEN-YEAR TOTAL 1980-89	1980	1989	TEN-YEAR AVERAGE[2] 1980-89	1980	1989	TEN-YEAR AVERAGE[2] 1980-89	1980	1989	TEN-YEAR AVERAGE[2] 1980-89
STATEWIDE TOTAL	619	613	5,730	414	368	3,506	205	245	2,204	12.4	9.1	9.9	8.3	5.5	6.1	4.1	3.6	3.8
METROPOLITAN COUNTIES	430	443	4,138	308	270	2,679	122	173	1,459	12.0	8.8	9.7	8.6	5.4	6.3	3.4	3.4	3.4
Maricopa	358	362	3,265	260	225	2,107	98	137	1,158	13.4	9.2	10.0	9.7	5.7	6.5	3.7	3.5	3.6
Pima	72	81	873	48	45	572	24	36	301	8.1	7.2	8.7	5.4	4.0	5.7	2.7	3.2	3.0
NON-METROPOLITAN COUNTIES	189	170	1,592	106	98	847	83	72	745	13.2	10.2	10.5	7.4	5.9	5.6	5.8	4.3	4.9
Apache	23	13	191	9	8	86	14	5	105	14.1	7.3	10.7	5.5	4.5	4.8	8.6	2.8	5.9
Cochise	19	12	158	13	8	104	6	4	54	12.1	6.9	9.9	8.2	4.6	6.5	3.9	2.3	3.4
Coconino	20	18	188	11	7	93	9	11	95	10.9	8.8	10.0	6.0	3.4	5.0	4.9	5.4	5.1
Gila	12	3	64	8	2	39	4	1	25	17.0	4.6	9.4	11.3	3.1	5.8	5.7	1.5	3.7
Graham	8	5	57	4	5	35	4	0	22	15.6	11.2	12.7	7.8	11.2	7.8	7.8	-	4.9
Greenlee	5	0	19	2	0	14	3	0	5	18.3	-	10.5	7.3	-	7.7	11.0	-	2.8
La Paz[3]	NA	2	20	NA	0	11	NA	2	9	NA	9.2	13.3	NA	-	7.3	NA	9.2	6.0
Mohave	18	23	117	10	13	59	8	10	58	20.7	17.0	11.3	11.5	9.6	5.7	9.2	7.4	5.6
Navajo	27	31	236	15	18	114	12	13	122	14.2	15.6	12.4	7.9	9.0	6.0	6.3	6.6	6.4
Pinal	17	23	199	14	17	113	3	6	86	9.2	11.0	10.0	7.6	8.1	5.7	1.6	2.9	4.3
Santa Cruz	3	8	49	3	3	30	0	5	19	6.0	11.4	9.0	6.0	4.3	5.5	-	7.1	3.5
Yavapai	11	12	116	4	8	61	7	4	55	11.8	9.6	10.6	4.3	6.4	5.7	7.5	3.2	5.0
Yuma	26	20	175	13	9	96	13	11	79	14.6	8.6	9.0	7.3	3.9	4.9	7.3	4.7	4.1

1 Number of infant deaths per 1,000 live births.

2 Annual average infant mortality rate calculated per 1,000 live births for the entire period 1980-1989 (number of infant deaths/1,000 live births/year).

3 Included in Yuma county prior to 1983.

TABLE 3-4

INFANT MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES OF DEATH,[2] BY YEAR, ARIZONA, 1980 - 1989

CAUSE OF DEATH	ICD Codes	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent Change From 1980
Certain conditions in perinatal period	760-779	6.1	4.8	3.5	3.6	3.4	3.4	3.8	3.9	3.9	3.4	-44.3
Low birthweight/ short gestation	765	0.9	1.0	0.6	0.7	0.8	0.9	1.0	1.9	1.2	0.8	-11.1
Respiratory distress syndrome	769	1.2	1.0	0.7	0.8	0.7	0.8	0.7	0.7	0.5	0.4	-66.7
Other respiratory	770	0.8	0.6	0.6	0.6	0.9	0.5	0.7	0.4	0.6	0.9	+12.5
Intrauterine hypoxia or birth asphyxia	768	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.1	0.2	0.1	-50.0
Maternal complications	761	0.4	0.2	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.3	-25.0
Other perinatal conditions	760,762-764 766-767, 771-779	2.6	1.8	1.2	1.1	0.7	0.8	0.9	0.7	1.3	1.0	-61.5
Congenital anomalies	740-759	2.8	3.1	2.4	2.6	2.4	2.6	2.0	2.3	2.4	2.3	-17.9
Circulatory system	745-747	1.2	1.2	1.1	1.1	1.0	1.0	0.6	0.8	1.1	0.9	-25.0
Respiratory system	748	0.2	0.3	0.2	0.2	0.2	0.4	0.2	0.4	0.3	0.4	+100.0
Central nervous system	740-742	0.5	0.5	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	-40.0
Other congenital anomalies	743-744, 749-759	0.9	1.1	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.6	-33.3
Sudden infant death syndrome	798.0	1.4	1.6	1.4	1.6	1.5	1.5	1.9	1.5	1.8	1.7	+21.4
Accidents/adverse effects	800-949	0.3	0.3	0.3	0.2	0.2	0.4	0.3	0.4	0.3	0.4	+33.3
Pneumonia/influenza	480-487	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	-50.0
All causes		12.4	11.6	9.3	9.6	9.5	9.6	9.4	9.4	9.7	9.1	-26.6

1 Infant mortality rates are presented per 1,000 live births.
2 The five causes with the greatest number of deaths over the 1980-1989 period.

TABLE 3-5

NUMBER AND RATE[1] OF INFANT DEATHS BY INFANT'S ETHNIC GROUP AND GENDER, ARIZONA, 1980-1989

Ethnic Group	1980		1981		1982		1983		1984		1985		1986		1987		1988		1989		Percent Change From 1980
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
All ethnic groups[2]																					
Total	619	12.4	600	11.6	491	9.3	509	9.6	525	9.5	572	9.6	569	9.4	598	9.4	634	9.7	613	9.1	-26.6
Male	364	14.1	360	13.7	296	10.9	288	10.5	258	9.1	350	11.5	338	10.9	347	10.7	352	10.5	321	9.3	-34.0
Female	255	10.6	240	9.5	195	7.8	221	8.6	267	10.0	222	7.7	231	8.3	251	8.1	282	8.8	292	8.9	-16.0
White[3]																					
Total	367	12.2	336	11.2	300	9.8	289	9 3	285	8.8	344	9.9	330	8.9	330	9.0	333	9.0	330	9.0	-26.2
Male	213	14.0	201	13.0	177	11.1	164	10.2	144	8.6	220	12.3	199	10.3	200	10.7	188	9.9	185	9.8	-30.0
Female	154	10.9	135	9.3	123	8.3	125	8.3	141	8.9	124	7.3	136	7.5	130	7.4	145	8.1	145	8.1	-25.7
Hispanic																					
Total	130	9.9	130	9.5	100	7.4	109	82	115	8.3	120	8.0	129	7.5	141	8.0	181	9.9	159	8.0	-19.2
Male	81	12.0	86	12.4	62	9.0	63	9.2	50	7.1	68	8.8	77	8.9	79	8.8	101	10.9	76	7.4	-38.3
Female	49	7.7	44	6.5	38	5.7	46	7.2	65	6.3	52	7.1	52	6.1	62	7.2	80	8.9	83	8.6	+11.7
Black																					
Total	40	15.3	54	24.5	27	11.8	50	21.4	45	18.3	32	12.7	41	15.0	45	15.6	55	17.9	54	17.5	+14.4
Male	23	21.6	31	27.1	17	14.2	32	26.6	19	15.2	20	16.0	29	20.4	23	15.6	30	19.3	26	16.6	-23.1
Female	17	17.0	23	21.8	10	9.1	18	15.8	26	21.6	12	9.4	12	9.2	22	15.6	25	16.5	28	18.5	8.8
Native American																					
Total	82	16.2	76	14.9	59	11.0	57	10.3	75	13.4	72	12.2	67	11.8	79	13.2	61	9.9	66	10.5	-35.2
Male	46	17.9	39	15.5	37	13.7	27	9.5	42	14.9	38	13.0	37	13.2	45	15.0	30	9.6	31	9.9	-44.7
Female	36	14.5	37	14.3	22	8.2	30	11.3	33	11.9	34	11.4	30	10.5	34	11.5	31	10.2	35	11.1	-23.4

1 Rate per 1,000 live births in specified ethnic/gender group.

2 Includes records with other and unknown ethnic group.

3 Includes only whites of non-Hispanic origin.

TABLE 3-6

NUMBER AND RATE[1] OF INFANT DEATHS BY INFANT'S ETHNIC GROUP AND AGE GROUP, ARIZONA, 1980-1989

Ethnic Group/ Infant Age Group	1980		1981		1982		1983		1984		1985		1986		1987		1988		1989		Percent Change From 1980
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
All ethnic groups[2]																					
Total Infant	619	12.4	600	11.6	491	9.3	509	9.6	525	9.5	572	9.6	569	9.4	598	9.4	634	9.7	613	9.1	-26.6
Neonatal	414	8.3	381	7.4	305	5.8	314	5.9	305	5.5	348	5.9	331	5.4	376	5.9	384	5.9	368	5.5	-33.7
Postneonatal	255	4.1	219	4.2	186	3.5	195	3.7	220	4.0	224	3.7	238	4.0	222	3.5	250	3.8	245	3.6	-12.2
White[3]																					
Total Infant	367	12.2	336	11.2	300	9.8	289	9.3	285	8.8	344	9.9	330	8.9	330	9.0	333	9.0	330	9.0	-26.2
Neonatal	213	7.1	233	7.8	202	6.6	178	5.7	179	5.5	225	6.5	200	5.8	251	7.0	205	5.7	205	5.6	-21.1
Postneonatal	154	5.1	103	3.4	98	3.2	111	3.6	106	3.3	119	3.4	134	3.9	79	2.2	129	3.6	125	3.4	-33.3
Hispanic																					
Total Infant	130	9.9	130	9.5	100	7.4	109	82	115	8.3	120	8.0	129	7.5	141	8.0	181	9.9	159	8.0	-19.2
Neonatal	81	6.2	83	6.1	66	4.9	77	5.8	72	5.2	64	4.3	74	4.3	47	2.7	107	5.5	100	5.0	-19.4
Postneonatal	49	3.7	47	3.5	34	2.5	32	2.4	43	3.1	56	3.7	51	3.0	94	5.3	73	3.8	59	3.0	-18.9
Black																					
Total Infant	40	15.3	54	24.5	27	11.8	50	21.4	45	18.3	32	12.7	41	15.0	45	15.6	55	17.9	54	17.5	+14.4
Neonatal	23	11.2	39	17.7	18	7.9	31	13.2	22	8.9	25	9.9	26	9.5	32	11.1	43	14.0	28	9.1	-9.8
Postneonatal	17	8.2	15	6.8	9	3.9	19	8.1	23	9.4	7	2.8	15	5.5	13	4.5	12	3.9	26	8.4	+2.4
Native American																					
Total Infant	82	16.2	76	14.9	59	11.0	57	10.3	75	13.4	72	12.2	67	11.8	79	13.2	61	9.9	66	10.5	-35.2
Neonatal	46	17.9	24	4.7	15	2.8	26	4.7	28	5.0	31	5.3	30	5.3	44	7.4	27	4.4	32	5.1	-71.5
Postneonatal	36	14.5	52	10.2	44	8.2	31	5.6	47	8.4	41	6.9	37	6.6	35	5.8	34	5.5	34	5.4	62.6

1 Rate per 1,000 live births in specified child's ethnic group.

2 Includes records with other and unknown ethnic group.

3 Includes only whites of non-Hispanic origin.

Childhood Mortality

The 1989 population of 845,208 children 1 to 14 years old was 42 percent greater than the 1980 population of children. Children in 1989 had better survival chances than children in 1980, as reflected in the 23 percent reduction in total mortality (Table 3-7). Their 1989 death rate of 35.1 per 100,000 was the lowest of the decade but still higher than the 1990 objective of fewer than 34 per 100,000. One in 2,188 children died in 1980 compared to one death for every 2,849 children in 1989.

Reduced death rates for unintentional injuries, malignant neoplasms and homicide contributed to the decline in total mortality from 1980 to 1989. However, only the 1989 cancer mortality rate was the decade's lowest. Congenital anomalies and diseases of the heart claimed children's lives at slightly higher rates in 1989 than in 1980. The 1989 motor vehicle-related death rate of children of 8.5 per 100,000 was 55 percent greater than the 1990 objective of a rate no greater than 5.5. per 100,000.

Gender Differences. The 1989 total mortality rate was the decade's lowest for boys but not for girls (Table 3-7). Rates for four of the five leading causes of death declined from 1980 to 1989 for boys, in contrast to three of five causes for girls. Girls died from congenital anomalies or were murdered at a higher rate in 1989 than in 1980. Both of these causes posed a lower mortality threat to boys in 1989 than in 1980.

Both genders experienced declines of at least 25 percent in their rates of death from motor-vehicle related unintentional injuries. This decline resulted in a 1989 motor vehicle death rate for girls that was 13 percent better than the 1990 objective of 5.5 per 100,000. However, despite the decline, boys had a 1989 motor vehicle death rate more than double the 1990 objective.

Little progress was made in reducing boys' drowning death rate, with the 1989 rate only 3 percent lower than the 1980 rate. In comparison, the 1989 fatal drowning rate for girls was the decade's lowest, 29 percent lower than the 1980 rate. In 1980, boys were twice as likely to drown as girls; by 1989 the drowning risk for boys was almost triple the risk for girls.

Regional Differences. Total mortality declined from 1980 to 1989 almost two times more for urban than for rural children (Table 3-8). Moreover, the 1989 mortality risk was the decade-low only for urban children. Rural children had a higher mortality rate in 1989 than urban children did in 1980.

Survival chances improved less over the decade for rural than urban children largely because of the differential trends in death rates for motor vehicle-related injuries. Motor vehicle death rates increased 46 percent for rural children but decreased 54 percent for urban children. Rural children were fatally injured in motor vehicle collisions in 1989 at the highest rate of the decade. Vehicular-inflicted injuries claimed urban children's lives in 1989 at the lowest rate of the decade. Compared to the 1990 objective, the 1989 motor vehicle death rate was three times greater for rural children but only 7 percent greater for urban children.

Drowning showed an opposite temporal pattern from 1980 to 1989, with death rates increasing for urban children and decreasing for rural children. Nine rural children drowned in 1980 compared to three in 1989, resulting in their lowest drowning death rate of the decade. In contrast, 36 urban children drowned in 1989, 15 more than in 1980. From 1980 to 1988, the odds of drowning for urban children were much less than the odds of dying in a motor vehicle crash. In 1989, for the first time in this decade, these mortality odds were nearly identical.

For urban children, cancer was the only other leading cause of death with the lowest mortality rate of the decade in 1989. The same situation applied to the 1989 rate of death from heart disease among rural children. The 1989 rates of death from congenital anomalies, homicide and infectious diseases were neither the highest nor lowest of the decade for children in either region.

From 1980 to 1989, survival chances improved nearly equally for urban boys and girls (Table 3-9). Rural girls were distinctly disadvantaged, with their 1980 and 1989 total mortality rates barely differing. Differences in the risk of death between rural children of either gender and their respective urban gender peers widened during the decade. In 1980, rural and urban girls differed very little in their mortality rates. By 1989, rural girls were 25 percent more likely to die than urban girls. The 31 percent higher mortality risk of rural compared to urban boys in 1980 increased to 45 percent in 1989.

TABLE 3-7

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG CHILDREN (1-14 years) BY GENDER, ARIZONA, 1980 AND 1985-1989

GENDER/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
MALE							
Unintentional injuries	33.2	27.5	27.3	21.8	21.2	24.4	-26.5
Motor vehicle-related	16.1	12.9	14.0	11.4	9.2	12.1	-24.8
Drowning	6.9	6.2	7.7	5.1	6.1	6.7	-2.9
Other	10.2	8.4	5.6	5.3	5.8	5.6	-45.1
Malignant neoplasms	4.3	2.5	5.6	4.1	3.7	3.5	-18.6
Congenital anomalies	3.0	3.1	3.1	2.5	3.7	2.6	-13.3
Homicide	3.0	3.1	1.6	1.5	3.4	1.9	-36.7
Diseases of heart	0.6	0.6	2.1	1.0	1.2	1.2	+100.0
All causes	56.2	49.6	52.1	42.4	44.5	41.6	-26.0
(Number of all deaths)	(171)	(177)	(197)	(167)	(183)	(179)	+4.7
FEMALE							
Unintentional injuries	16.4	10.7	15.3	11.3	14.9	9.9	-39.6
Motor vehicle-related	8.2	4.9	7.1	6.1	10.1	4.8	-41.5
Drowning	3.4	2.9	3.8	2.9	2.5	2.4	-29.4
Other	4.8	2.9	4.4	2.4	2.3	2.7	-43.8
Malignant neoplasms	3.1	4.4	4.1	3.2	3.8	2.7	-12.9
Congenital anomalies	2.0	2.3	2.7	2.1	2.8	2.9	+45.0
Homicide	1.7	1.7	1.9	1.3	2.8	2.2	+29.4
Pneumonia and influenza	1.7	0.6	1.4	0.8	1.5	1.5	-11.8
All causes	34.8	28.5	32.9	27.7	33.3	28.5	-18.1
(Number of all deaths)	(102)	(98)	(120)	(105)	(132)	(118)	+15.7
TOTAL							
Unintentional injuries	24.9	19.3	21.4	16.7	18.1	17.2	-30.9
Motor vehicle-related	12.2	9.0	10.6	8.8	9.7	8.5	-30.3
Drowning	5.2	4.6	5.8	4.0	4.1	4.6	-11.5
Other	7.5	5.7	5.0	3.9	4.3	4.1	-45.3
Malignant neoplasms	3.7	3.4	4.8	3.6	3.7	3.1	-16.2
Congenital anomalies	2.5	2.7	3.0	2.3	3.2	2.7	+8.0
Homicide	2.3	2.4	1.7	1.4	3.1	2.0	-13.0
Diseases of heart	1.0	0.4	1.7	1.6	1.2	1.1	+10.0
All causes	45.7	39.2	42.7	35.2	39.0	35.1	-23.2
(Number of all deaths)	(273)	(275)	(317)	(272)	(315)	(297)	+8.8

1 Rates are presented per 100,000 population
2 The five causes with the greatest number of deaths over the 1980-89 period.

TABLE 3-8

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG CHILDREN (1-14 years) IN URBAN AND RURAL AREAS,[3] ARIZONA, 1980 AND 1985 - 1989

AREA/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Unintentional injuries	22.5	17.4	18.8	14.9	14.6	15.1	-32.9
Motor vehicle-related	12.7	8.6	8.8	7.7	7.9	5.9	-53.5
Drowning	4.9	4.1	5.9	4.0	4.0	5.7	+16.3
Other	4.9	4.7	4.0	3.2	2.7	3.5	-28.6
Malignant neoplasms	3.5	3.1	5.7	3.2	4.0	3.0	-14.3
Congenital anomalies	2.6	3.5	2.8	2.5	3.5	2.2	-15.4
Homicide	2.6	2.8	1.5	1.9	2.5	2.1	-19.2
Infectious diseases	1.4	0.6	1.9	0.9	1.5	0.5	-64.3
All causes	43.5	37.4	40.1	34.1	33.5	32.1	-26.2
(Number of all deaths)	(185)	(190)	(218)	(194)	(200)	(202)	+9.2
RURAL							
Unintentional injuries	30.9	23.9	28.5	21.5	28.1	23.6	-23.6
Motor vehicle-related	11.1	9.9	15.5	11.7	14.8	16.2	+46.0
Drowning	5.8	5.7	5.5	3.9	5.2	1.4	-75.9
Other	14.0	8.3	7.5	5.9	8.1	6.0	-57.1
Congenital anomalies	2.3	0.5	3.5	2.0	2.4	4.2	+82.6
Malignant neoplasms	4.1	4.2	2.5	4.9	2.9	3.2	-22.0
Homicide	1.8	1.6	2.5	0.0	4.8	1.9	+5.6
Diseases of heart	1.8	1.6	2.5	2.0	2.9	0.0	-100.0
All causes	51.3	44.3	49.6	38.1	54.7	44.0	-14.2
(Number of all deaths)	(88)	(85)	(99)	(78)	(115)	(95)	+8.0
STATEWIDE							
Unintentional injuries	24.9	19.3	21.4	16.7	18.1	17.2	-30.9
Motor vehicle-related	12.2	9.0	10.6	8.8	9.7	8.5	-30.3
Drowning	5.2	4.6	5.8	4.0	4.1	4.6	-11.5
Other	7.5	5.7	5.0	3.9	4.3	4.1	-45.3
Malignant neoplasms	3.7	3.4	4.8	3.6	3.7	3.1	-16.2
Congenital anomalies	2.5	2.7	3.0	2.3	3.2	2.7	+8.0
Homicide	2.3	2.4	1.7	1.4	3.1	2.0	-13.0
Diseases of heart	1.0	0.4	1.7	1.6	1.2	1.1	+10.0
All causes	45.7	39.2	42.7	35.2	39.0	35.1	-23.2
(Number of all deaths)	(273)	(275)	(317)	(272)	(315)	(297)	+8.8

1 Rates are presented per 100,000 population.
2 The five causes with the greatest number of deaths over the 1988-1989 period.
3 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

TABLE 3-9

MORTALITY RATES[1] AMONG
CHILDREN (1-14 years) BY GENDER IN URBAN AND RURAL AREAS,[2]
ARIZONA, 1980 AND 1985 - 1989

Area/Gender	1980	1985	1986	1987	1988	1989	Percent Change From 1980
Urban							
Male	51.6	48.6	48.3	40.2	37.6	37.3	-27.7
Female	35.0	25.5	31.6	27.7	29.1	26.9	-23.1
Total	43.5	37.4	40.1	34.1	33.5	32.1	-26.2
Rural							
Male	67.8	52.3	62.8	48.9	64.2	54.1	-20.2
Female	34.4	36.4	36.2	27.5	45.1	33.6	-2.3
Total	51.3	44.3	49.6	38.1	54.7	44.0	-14.2
Statewide							
Male	56.2	49.6	52.1	42.4	4[illegible]5	41.6	-26.0
Female	34.8	28.5	32.9	27.7	33.3	28.5	-18.1
Total	45.7	39.2	42.7	35.2	39.0	35.1	-23.2

1 Rates are presented per 100,000 population.
2 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

Adolescent Mortality

The 256,977 adolescents (15 to 19 year olds) residing in Arizona in 1989 comprised a smaller fraction of the total population than their counterparts in 1980 did (6.9 and 9.3 percent respectively). The lives of 261 adolescents were prematurely ended in 1989 for a mortality rate of 101.6 per 100,000, 11 percent lower than the 1980 rate (Table 3-10). This mortality reduction was less than the 20 percent specified in the 1990 objective.[a] Thus, the 1989 death rate was 9 percent higher than the 1990 objective of 93 per 100,000.

From 1980 to 1989, adolescent death rates for unintentional injuries, homicide and malignant neoplasms declined while death rates for suicide and diseases of the heart increased. The 1989 adolescent suicide mortality, the second highest of the decade, was 38 percent greater than the 1980 rate and at least 70 percent greater than the 1990 objective of 11 per 100,000.[a] Almost one in five adolescent deaths were self-intentionally inflicted in 1989 compared to one in nine in 1980.

The 18 percent reduction from 1980 to 1989 in the unintentional injury death rate made the 1989 rate the second lowest of the decade (the lowest was in 1983). However, the 1989 motor vehicle death rate was the decade's lowest for adolescents. In contrast, deaths from unintentional injuries not incurred in motor vehicle incidents happened in 1989 at the third highest rate of the decade, only surpassed by rates in 1980 and 1981.

In 1989 as in 1980, violence (i.e., unintentional injuries, suicide and homicide) accounted for 80 percent of adolescent deaths. Cancer and heart disease, the fourth and fifth leading causes of adolescent death, were responsible for only 6 percent of deaths at both the beginning and the end of the decade.

Gender Differences. Both male and female adolescents had substantial increases in their suicide death rates from 1980 to 1989 (33 and 94 percent respectively; Table 3-10). However, male but not female adolescents in 1989 committed suicide at the highest rate not only of the decade but also since suicide rates were recorded. Moreover, the 1989 male adolescent suicide death rate exceeded each of the five cause-specific death rates for female adolescents. In 1989, male adolescents were five times more likely to kill themselves than female adolescents.

Male compared to female adolescents had almost a four times higher mortality risk from unintentional injuries in 1989 (rates of 84.9 and 21.8 respectively). This large differential in risk was primarily due to gender differences in unintentional injuries other than motor vehicle. Females died from falls, fires, poisoning, drowning, etc. in 1989 at the decade's lowest rate, 67 percent lower than the 1980 rate. The corresponding rate for male adolescents only dropped 15 percent from 1980 to 1989, with the 1989 rate the third highest of the decade. In 1980, male compared to female adolescents were about five times more likely to be fatally injured in a fall, fire, drowning, etc. By 1989, the male to female ratio of risk from these types of injuries was 17:1.

Male adolescents ended the decade with the same risk of dying from cancer as when the decade began (3.9 per 100,000). Cancer death rates decreased 47 percent from 1980 to 1989 for female adolescents, making their 1989 risk of dying from cancer identical to males. However, annual female cancer death rates were lower than 3.9 from 1981-1984.

Regional Differences. Urban adolescents had a 3.6 times greater improvement in their survival chances over the decade than did rural adolescents (14.6 and 4 percent respectively; Table 3-11). Moreover, the 1989 total mortality rate for rural adolescents was the third highest of the decade and exceeded the 1990 objective by 53 percent. Urban adolescents had slightly lower mortality rates in 1982 and 1983 (87.1 and 77.9

[a] The Public Health Service 1990 objectives for adolescents cover 15 to 24 year olds rather than 15 to 19 year olds. Hence, the magnitude of the differences between the rates of the 1990 objectives and the Arizona rates are underestimated.

respectively) than in 1989 (87.6) but their 1989 rate was 6 percent better than the 1990 objective. The 45 percent higher mortality risk for rural relative to urban adolescents in 1980 increased to a 63 percent greater relative risk for death in 1989.

Unintentional injury death rates did not improve for rural adolescents from 1980 to 1989. In fact, the 1989 rate was slightly higher than the 1980 rate. In addition, the 1989 unintentional injury death rate for rural adolescents exceeded the rate of death from all causes for urban adolescents. If urban adolescents in 1989 had the same mortality risk from unintentional injuries as rural adolescents, 91 more would have been fatally injured.

Since 1984, rural adolescents have died from injuries in motor vehicle accidents at annual rates exceeding the 1980 rate. In comparison, the 1989 motor vehicle injury death rate for urban adolescents was the lowest of the decade. Injuries not motor vehicle-related killed rural adolescents in 1989 at the second highest rate of the decade. In 1989, urban compared to rural adolescents had a 40 percent lower mortality risk from other unintentional injuries.

The increase in suicide death rates from 1980 to 1989 was 3.4 times greater for rural than urban adolescents. In 1989, rural adolescents killed themselves at the second highest rate of the decade and since suicide rates were recorded. In 1980, rural compared to urban adolescents were 35 percent more likely to commit suicide; by 1989 they were 93 percent more likely to do so.

For the remaining three leading causes of death, homicide, cancer and heart disease, urban adolescents had a higher mortality risk than rural adolescents in 1989. Except for homicide, this repeated the pattern in 1980. The 1989 death rate for each of these causes was neither the highest nor lowest of the decade for either group of adolescents.

The survival chances of rural female adolescents were 24 percent worse at the end than the start of the decade (Table 3-12). Improvements for the other three gender by region groups ranged from a low of 8 percent for rural male adolescents to 22 percent for urban female adolescents. The relative standing of the 1989 mortality rate to all other annual mortality rates during the decade for each region by gender group was a) second lowest for urban female adolescents; b) fourth lowest for urban male adolescents and for rural female adolescents; and c) third highest for rural male adolescents.

In 1980, the mortality risks of urban and rural female adolescents were virtually identical and at least 62 percent lower than both male groups. By 1989, for every 1 death per 100,000 urban female adolescents, 1.6 per 100,000 rural female adolescents died, 3 per 100,000 urban male adolescents died and 5 per 100,000 rural male adolescents died.

TABLE 3-10

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG ADOLESCENTS (15-19 years) BY GENDER, ARIZONA, 1980 AND 1985 - 1989

GENDER/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
MALE							
Unintentional injuries	100.6	78.6	91.4	82.9	86.5	84.9	-15.6
Motor vehicle-related	68.6	66.8	72.6	59.5	66.1	57.6	-16.0
Other than motor vehicle	32.0	11.8	18.8	23.4	20.4	27.3	-14.7
Suicide	23.4	26.2	26.1	30.6	29.9	31.2	+33.3
Homicide	23.4	9.3	19.6	12.9	15.7	17.9	-23.5
Malignant neoplasms	3.9	10.2	5.7	5.6	3.9	3.9	0.0
Diseases of heart	1.6	2.5	4.1	2.4	0.8	2.3	+43.8
All causes	170.7	146.4	158.4	146.4	151.0	152.7	-10.5
(Number of all deaths)	(219)	(173)	(194)	(182)	(192)	(196)	-10.5
FEMALE							
Unintentional injuries	28.2	44.0	44.6	25.6	29.9	21.8	-22.7
Motor vehicle-related	23.4	37.2	41.4	21.6	25.2	20.2	-13.7
Other than motor vehicle	4.8	6.8	3.2	4.0	4.7	1.6	-66.7
Suicide	3.2	8.5	4.0	11.2	7.1	6.2	+93.8
Homicide	3.2	6.8	8.1	3.2	3.9	3.1	-3.1
Malignant neoplasms	7.3	4.2	5.7	5.6	6.3	3.9	-46.6
Diseases of heart	1.6	3.4	0.0	0.0	0.8	1.6	0.0
All causes	56.6	74.5	72.2	56.8	55.1	50.6	-10.6
(Number of all deaths)	(70)	(88)	(89)	(71)	(70)	(65)	-7.1
TOTAL							
Unintentional injuries	65.0	61.3	67.5	54.2	58.2	53.3	-18.0
Motor vehicle-related	46.4	52.0	56.9	40.5	45.6	38.9	-16.2
Other than motor vehicle	18.6	9.3	10.6	13.7	12.6	14.4	-22.6
Suicide	13.5	17.3	15.0	20.9	18.5	18.7	+38.5
Homicide	13.5	8.0	13.8	8.0	9.8	10.5	-22.2
Malignant neoplasms	5.6	7.2	5.7	5.6	5.1	3.9	-30.4
Diseases of heart	1.6	3.0	2.0	1.2	0.8	2.0	+25.0
114.7							
All causes	114.7	110.4	115.1	101.5	103.0	101.6	-11.4
(Number of all deaths)	(289)	(261)	(283)	(253)	(262)	(261)	-9.7

1 Rates are presented per 100,000 population.
2 The five causes with the greatest number of deaths over the 1980-1989 period.

TABLE 3-11

MORTALITY RATES[1] FOR THE
FIVE LEADING CAUSES[2] OF DEATH AMONG
ADOLESCENTS (15-19 years) IN URBAN AND RURAL AREAS,[3]
ARIZONA, 1980 AND 1985-1989

AREA/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Unintentional injuries	56.9	56.8	57.1	41.7	51.2	41.2	-27.6
Motor vehicle-related	40.8	47.6	47.2	31.4	39.6	30.8	-24.5
Other than motor vehicle	16.1	9.2	9.9	10.3	11.6	10.4	-35.4
Suicide	12.4	21.8	13.2	20.0	14.3	15.1	+21.8
Homicide	11.3	6.3	16.5	9.2	12.2	11.0	-2.7
Malignant neoplasms	6.4	4.0	6.0	5.4	5.8	4.7	-26.6
Diseases of heart	1.6	2.9	2.2	1.1	1.1	2.1	+31.3
All causes	102.6	103.3	103.8	88.2	93.0	87.6	-14.6
(Number of all deaths)	(191)	(180)	(189)	(163)	(176)	(168)	-12.0
RURAL							
Unintentional injuries	88.0	74.0	98.7	90.1	78.8	88.9	+1.0
Motor vehicle-related	62.2	64.4	84.6	66.8	63.4	62.9	+1.1
Other than motor vehicle	25.8	9.6	14.1	23.3	15.5	26.1	+1.2
Suicide	16.7	4.8	20.4	23.3	30.9	29.1	+74.3
Homicide	19.7	12.9	6.3	4.7	3.1	9.2	-53.3
Malignant neoplasms	3.0	16.1	4.7	6.2	3.1	1.5	-50.0
Diseases of heart	1.5	3.2	1.6	1.6	-	1.5	0.0
All causes	148.6	130.4	147.3	139.8	132.9	142.6	-4.0
(Number of all deaths)	(98)	(81)	(94)	(90)	(86)	(93)	-5.1
STATEWIDE							
Unintentional injuries	65.0	61.3	67.5	54.2	58.2	53.3	-18.0
Motor vehicle-related	46.4	52.0	56.9	40.5	45.6	38.9	-16.2
Other than motor vehicle	18.6	9.3	10.6	13.7	12.6	14.4	-22.6
Suicide	13.5	17.3	15.0	20.9	18.5	18.7	+38.5
Homicide	13.5	8.0	13.8	8.0	9.8	10.5	-22.2
Malignant neoplasms	5.6	7.2	5.7	5.6	5.1	3.9	-30.4
Diseases of heart	1.6	3.0	2.0	1.2	0.8	2.0	+25.0
All causes	114.7	110.4	115.1	101.5	103.0	101.6	-11.4
(Number of all deaths)	(289)	(261)	(283)	(253)	(262)	(261)	-9.7

1 Rates are presented per 100,000 population.
2 The five causes with the greatest number of deaths over the 1980-1989 period.
3 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

TABLE 3-12

MORTALITY RATES[1] AMONG
ADOLESCENTS (15-19 years) BY GENDER IN URBAN AND RURAL AREAS,[2]
ARIZONA, 1980 AND 1985 - 1989

AREA/GENDER	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Male	147.0	135.7	139.0	122.9	136.5	130.8	-11.0
Female	56.8	70.5	68.4	53.2	48.9	44.0	-22.5
Total	102.6	103.3	103.8	88.2	93.0	87.6	-14.6
RURAL							
Male	237.3	177.1	215.2	218.3	194.0	218.2	-8.1
Female	55.8	85.3	82.6	66.9	72.7	69.4	+24.4
Total	148.6	130.4	147.3	139.8	132.9	142.6	-4.0
STATEWIDE							
Male	170.7	146.4	158.4	146.4	151.0	152.7	-10.5
Female	56.6	74.5	72.2	56.8	55.1	50.6	-1.6
Total	114.7	110.4	115.2	101.5	103.0	101.6	-11.4

1 Rates are presented per 100,000 population.
2 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

Mortality of Young Adults

The population of young adults (20 to 44 year olds) grew 45 percent from 1980 to 1,462,530 individuals in 1989. The large growth rate of this population more than offset the 28 percent increase in the number of young adult deaths from 1,768 in 1980 to 2,269 in 1989 (Table 3-13). Thus, the 1989 young adult total mortality rate of 155.1 per 100,000 was 12 percent lower than the 1980 rate. One in 645 young adults died in 1989 compared to one in 569 in 1980.

During 1989, 633 young adults died from unintentional injuries, 328 killed themselves, 246 died from cancer, 197 were murdered, 189 died from heart disease and 676 died from all other causes. Mortality rates for all five leading leading causes of young adult death declined from 1980 to 1989. The decline in rates was substantial, i.e. at least 10 percent, for deaths from unintentional injuries, cancer and homicide but not for deaths from suicide and heart disease.

The 1989 unintentional injury death rate was the lowest of the decade primarily because of the 40 percent reduction in the rate of death from motor vehicle injuries. The motor vehicle death rate for young adults in 1989 was the lowest of the decade, at least 12 percent lower than any prior annual rate of the decade. Vehicular injuries accounted for a smaller percent of young adult deaths in 1989 than in 1980 (17 and 25 respectively) and resulted in fewer deaths in 1989 than in 1980 (383 and 440 respectively).

Suicide death rates of young adults were relatively stable during the decade, ranging from a low of 21.8 to a high of 24.6 per 100,000. Homicide death rates varied somewhat more (range = 3.9 per 100,000), with the 1989 rate the fourth lowest of the decade. Intentional injuries accounted for 23 percent of young adult deaths in 1989.

The 1989 cancer death rate was the lowest of the decade but that rate (16.8 per 100,000) occurred earlier in 1981. Diseases of the heart claimed young adult lives at lower rates in 1983, 1984 and 1988 than in 1989.

Gender Differences. Survival chances improved five times more from 1980 to 1989 for young adult females than for males (Table 3-13). Young adult males compared to females had a 110 percent greater mortality risk in 1980; by 1989 it was 171 percent greater. If males had had the same decline in mortality rate as did females, 375 fewer young adult men would have died in 1989.

Females had at least a 10 percent decrease from 1980 to 1989 in all five leading causes of death, while the male decreases were this large for only unintentional injuries and homicide. Violence (unintentional injuries, suicide and homicide) accounted for 55 percent of young adult male deaths and 39 percent of female deaths in 1989. The corresponding gender percentages in 1980 were 66 and 40.

However, despite some of the decreases noted between the 1980 and 1989 rates, male and female annual death rates for cancer, homicide and heart disease erratically varied from high and low throughout the decade. Thus, it was difficult to state that the 1989 rates represented progress. The only clear exception was the 1989 motor vehicle death rates, the lowest of the decade for both genders.

Eighty percent of the 1989 deaths (n = 199) from Human Immunodeficiency Virus (HIV) infection occurred in this age group, the same proportion as in 1988. For this reason, and because of high public interest in HIV infection, some data about these deaths are presented. Both in 1988 and 1989, HIV infection was the fifth leading cause of death among white non-Hispanics (see Table 9-15 in Section Two). HIV infection became the seventh leading cause of death for Hispanics in 1989. Males accounted for 156 (98 percent) of the 159 young adult deaths from HIV in 1989. The 1989 young adult male mortality rate for HIV infection was 21.1 per 100,000, 23 percent greater than the 1988 rate of 17.1 per 100,000. In 1989, the HIV infection mortality rate of young adult males exceeded the death rates for homicide, heart disease and cancer by at least 9 percent.

Regional Differences. Total mortality declined from 1980 to 1989 almost twice as much for urban young adults than for rural young adults (Table 3-14). Thus, the mortality risk of rural young adults relative to urban young adults became greater, going from 31 percent higher in 1980 to 40 percent higher in 1989. All five 1989 cause-specific death rates were higher for rural than for urban young adults.

The decline from 1980 to 1989 in motor vehicle death rates was two times greater for urban than rural young adults. The 1989 vehicular fatality rate was the lowest of the decade for urban but not for rural young adults. If the rural motor vehicle death rate had improved as much as the urban rate, 69 rural young adults would not have been a vehicular fatality in 1989.

Unintentional injuries not incurred in a vehicular incident were responsible for rural young adult deaths in 1989 at the lowest rate of the decade. Urban young adults were not as fortunate; their 1989 death rate for these other unintentional injuries was the second highest of the decade and 20 percent higher than the 1980 rate. Despite these different temporal trends by region, urban compared to rural young adults were 25 percent less likely in 1989 to be fatally injured in a fire, fall, drowning, etc.

From 1980 to 1989, cancer death rates declined 30 percent for urban young adults but increased 57 percent for rural young adults. Rural young adults died from cancer in 1989 at the third highest rate of the decade. In contrast, cancer claimed the lives of urban young adults in 1989 at the lowest rate of the decade, at least 11 percent lower than the annual rates of the prior five years.

Suicide death rates have been higher for rural than for urban young adults in seven out of ten years of this decade. During the decade, annual suicide death rates for urban young adults were quite stable, varying by only 3.6 deaths per 100,000. Rural young adult suicide rates varied three times more, from a low of 18.9 to a high of 29.7 per 100,000.

For both urban and rural young adults, increasing or decreasing temporal trends in heart disease and homicide death rates were not seen. Since 1985, heart disease death rates plateaued at 11-12 per 100,000 for urban young adults and at about 16 per 100,000 for rural young adults. Annual increases or decreases in homicide rates were erratic.

Rural young adult males improved the least in survival chances among the four region by gender groups from the start to the end of the decade (Table 3-15). Urban young adult females gained the most, with their 1989 total mortality rate the lowest of the decade. The 1989 total mortality rates for rural females and urban males were intermediate, with lower rates seen in at least 4 prior years of the decade. In 1989, relative to urban females, the mortality risk was 49 percent greater for rural females, 177 percent greater for urban males and 288 percent greater for rural males. The 1989 elevation in mortality risk relative to urban females for each group was substantially greater than it was in 1980 (percent greater of 22, 104 and 176 respectively).

As a final note, the HIV mortality rate was three times greater for urban than for rural males (24.5 and 7.9 per 100,000 respectively). Only three females died from HIV infection in 1989, all urban residents.

TABLE 3-13

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG YOUNG ADULTS (20-44 years) BY GENDER, ARIZONA, 1980 AND 1985 - 1989

GENDER/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
MALE							
Unintentional injuries	97.3	80.5	80.6	82.6	76.3	68.8	-29.8
Motor vehicle-related	66.8	55.5	52.4	53.5	45.2	39.8	-40.4
Other than motor vehicle	30.5	25.0	28.2	29.1	31.1	29.0	-4.9
Suicide	35.9	34.5	36.7	37.3	37.1	36.5	+1.7
Homicide	23.8	18.4	24.5	20.7	21.7	19.4	-18.5
Diseases of heart	18.8	19.7	20.6	17.8	16.8	18.0	-4.3
Malignant neoplasms	16.0	17.8	15.6	19.1	18.4	15.8	-1.3
All causes	238.0	219.0	235.1	230.5	233.1	225.6	-5.2
(Number of all deaths)	(1201)	(1377)	(1565)	(1590)	(1664)	(1667)	+38.8
FEMALE							
Unintentional injuries	27.2	21.1	24.8	22.3	22.0	17.3	-36.4
Motor vehicle-related	20.8	15.8	18.8	17.1	15.7	12.3	-40.9
Other than motor vehicle	4.4	5.3	6.0	5.2	6.3	5.0	+13.6
Malignant neoplasms	24.6	17.5	24.5	21.7	20.6	17.7	-28.1
Suicide	9.8	8.8	12.2	10.5	10.3	8.0	-18.4
Diseases of heart	8.4	6.1	5.0	8.0	6.6	7.6	-9.5
Homicide	8.6	6.1	6.1	5.3	7.3	7.5	-12.8
All causes	113.2	85.5	102.6	92.2	92.9	83.2	-26.5
(Number of all deaths)	(567)	(531)	(671)	(624)	(650)	(602)	+6.2
TOTAL							
Unintentional injuries	61.3	51.0	53.0	52.8	49.4	43.3	-29.4
Motor vehicle-related	43.8	35.8	35.8	35.5	30.6	26.2	-40.2
Other than motor vehicle	17.5	15.2	17.2	17.3	18.8	17.1	-2.3
Suicide	22.9	21.8	24.6	24.0	23.8	22.4	-2.2
Malignant neoplasms	20.3	17.7	20.0	20.4	19.5	16.8	-17.2
Homicide	16.2	12.3	15.4	13.1	14.6	13.5	-16.7
Diseases of heart	13.6	13.0	12.9	13.0	11.7	12.9	-5.2
All causes	175.8	152.7	169.4	162.0	163.7	155.1	-11.8
(Number of all deaths)	(1768)	(1908)	(2236)	(2214)	(2314)	(2269)	+28.3

1 Rates are presented per 100,000 population.

2 The five causes with the greatest number of deaths over 1980-1989.

TABLE 3-14

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG YOUNG ADULTS (20-44 years) IN URBAN AND RURAL AREAS,[3] ARIZONA, 1980 AND 1985 - 1989

AREA/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Unintentional injuries	52.6	41.0	45.3	41.5	41.1	36.9	-29.9
Motor vehicle-related	39.3	30.2	30.5	26.1	24.5	20.9	-46.8
Other than motor vehicle	13.3	10.8	14.8	15.4	16.5	16.0	+20.3
Suicide	22.2	20.9	24.0	22.5	24.5	22.0	-0.9
Malignant neoplasms	22.3	17.6	19.6	19.5	19.3	15.6	-30.0
Homicide	15.7	12.3	15.3	12.7	13.9	13.1	-16.6
Diseases of heart	13.0	11.9	12.0	11.9	11.4	11.8	-9.2
All causes	164.1	138.6	158.1	146.3	151.7	143.0	-12.9
(Number of all deaths)	(1273)	(1351)	(1636)	(1570)	(1688)	(1652)	+29.8
RURAL							
Unintentional injuries	90.8	86.5	80.7	94.1	80.5	67.1	-26.1
Motor vehicle-related	59.1	55.6	54.7	69.9	53.3	45.9	-22.3
Other than motor vehicle	31.7	30.9	26.0	24.2	27.3	21.2	-33.1
Suicide	25.2	24.7	26.7	29.7	21.3	24.1	-4.4
Malignant neoplasms	13.5	17.8	21.4	23.9	20.0	21.2	+57.0
Diseases of heart	15.6	16.7	16.1	16.7	13.0	16.9	+8.3
Homicide	17.8	12.4	15.8	14.7	17.0	15.0	-15.7
All causes	215.3	202.4	210.4	219.5	208.3	200.9	-6.7
(Number of all deaths)	(495)	(557)	(600)	(644)	(626)	(617)	+24.7
STATEWIDE							
Unintentional injuries	61.3	51.0	53.0	52.8	49.4	43.3	-29.4
Motor vehicle-related	43.8	35.8	35.8	35.5	30.6	26.2	-40.2
Other than motor vehicle	17.5	15.2	17.2	17.3	18.8	17.1	-2.3
Suicide	22.9	21.8	24.6	24.0	23.8	22.4	-2.2
Malignant neoplasms	20.3	17.7	20.0	20.4	19.5	16.8	-17.2
Homicide	16.2	12.3	15.4	13.1	14.6	13.5	-16.7
Diseases of heart	13.6	13.0	12.9	13.0	11.7	12.9	-5.2
All causes	175.8	152.7	169.4	162.0	163.7	155.1	-11.8
(Number of all deaths)	(1768)	(1908)	(2236)	(2214)	(2314)	(2269)	+28.3

1 Rates are presented per 100,000 population.

2 The five causes with the greatest number of deaths over 1980-1989 period.

3 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

TABLE 3-15

MORTALITY RATES[1] AMONG YOUNG ADULTS (20-44 years)
BY GENDER IN URBAN AND RURAL AREAS,[2]
ARIZONA, 1980 AND 1985 - 1989

Area/Gender	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Male	220.3	197.8	217.9	207.4	215.2	208.5	-5.4
Female	107.7	78.2	96.7	83.3	86.1	75.2	-30.2
Total	164.1	138.6	158.1	146.3	151.7	143.0	-12.9
RURAL							
Male	297.1	295.6	299.0	317.2	301.5	292.0	-1.7
Female	131.8	110.9	123.6	124.0	117.6	112.4	-14.7
Total	215.3	202.4	210.4	219.5	208.3	200.9	-6.7
STATEWIDE							
Male	238.0	219.0	235.1	230.5	233.1	225.6	-5.2
Female	113.2	85.5	102.6	92.2	92.9	83.2	-26.5
Total	175.8	152.7	169.4	162.0	163.7	155.1	-11.8

1 Rates are presented per 100,000 population.
2 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

Mortality of Middle-Aged Adults

A growth rate of 25 percent from 1980 increased the population of middle-aged adults (45 to 64 year olds) to 635,919 persons in 1989. The death of 4,861 middle-aged adults in 1989 resulted in the lowest total mortality rate of the decade, 764.4 per 100,000, 17 percent below the 1980 rate (Table 3-16). One of every 131 middle-aged adults died in 1989 compared to a 1980 ratio of one death for every 109 adults.

During an average week in 1989, 32 middle-aged adults died of cancer, 24 died of heart disease, 5 died of chronic obstructive pulmonary disease (COPD), 5 were fatally injured unintentionally, 3 died of alcoholism and 24 died of all other causes. Cancer and heart disease each accounted for 31 percent of middle-aged adult deaths in 1980. By 1989, the proportion of deaths from cancer rose to 34 percent, while the proportion of deaths from heart disease fell to 27 percent.

All leading cause-specific rates of death for middle-aged adults fell from 1980 to 1989. Cerebrovasular diseases (stroke) and heart disease, diseases with many risk factors in common, had the first and second largest declines among the leading causes. Stroke caused middle-aged adult deaths at a 34 percent lower rate in 1989 than in 1980, with the 1988 and 1989 rates tied for the decade-low rate. The 1989 rate of middle-aged death from heart disease was 27 percent less than the 1980 rate and the lowest rate of the decade. Moreover, the decline in heart disease death rates was nearly progressive from year-to-year, with only slight deviations in 1982 and 1987.

In contrast, the 10 percent decrease in the cancer death rate from 1980 to 1989 was not progressive but almost completely due to the sharp drop from 1988 to 1989. Annual cancer death rates for the 1980-88 period varied almost randomly from 271 to 287 per 100,000. The 1989 cancer mortality rate was the lowest of the decade, but more years of data are needed to decide if this represents the start of a declining trend.

The 22 percent reduction in the COPD death rate from 1980 to 1989 was considered a true improvement in mortality odds for this disease from the start to the end of the decade. Since 1982, annual death rates for COPD (except 1985) have been at least 19 percent less than the 1980 and 1981 rates. The 1989 COPD death rate was the second lowest of the decade, with the 1988 rate the lowest.

Yearly drops in the unintentional injury death rate during the 1980-86 period resulted in a 30 percent reduction relative to 1980. The 1989 unintentional injury death rate, 22 percent lower than the 1980 rate, was still 11 percent higher than the 1986 rate, the year the earlier clearly declining trend ended. A similar temporal pattern applied to both components of this rate, motor vehicle injuries and other unintentional injuries.

Gender Differences. Survival chances improved 77 percent more from 1980 to 1989 for middle-aged males than for females (Table 3-16). The reason for the greater improvement was that middle-aged males but not females had at least a 12 percent reduction from 1980 to 1989 in the rates of all five leading causes of death.

Females compared to males had a 45 percent smaller decrease in cancer death rates from 1980 to 1989. The 1989 cancer death rate was the lowest of the decade for middle-aged males but not for females. The higher risk of dying from cancer for males relative to females appears to be gradually disappearing; it was only 11 percent in 1989.

The 31 percent reduction in male heart disease death rates, from 444 per 100,000 in 1980 to 300 per 100,000 in 1989, meant that 100 fewer middle-aged men died of heart disease in 1989 than in 1980. Middle-aged males remained strongly disadvantaged relative to females in deaths from heart disease, with a 2.7 times higher risk in 1989.

The genders differed most in trends for COPD, with death rates decreasing 41 percent for males and increasing 26 percent for females. These opposing trends slashed the male to female relative risk for COPD death from an 185 percent male excess in 1980 to a 32 percent male excess in 1989. If these trends continue in the future, females may have a COPD death rate that exceeds the male rate.

The genders also are dissimilar in one of the five leading causes of death, with

stroke in the female listing and alcoholism in the male. Female deaths from stroke and male deaths from alcoholism both occurred at lower rates in 1989 than in 1980, but the reduction was much greater for stroke than for alcoholism. The 1989 middle-aged female stroke death rate was the lowest of the decade.

Annually during the decade, middle-aged males were more likely to die from alcoholism than from stroke. Indeed, in 1989 the male alcoholism death rate was 32 percent higher than the male stroke death rate (27.6 per 100,000). However, the 1989 rate of male death from alcoholism was the second lowest of the decade.

Regional Differences. All improvement in total mortality was confined to urban middle-aged adults, with their 1989 mortality rate the lowest of the decade (Table 3-17). Rural middle-aged adults chances of dying in 1989 were no better than their chances in 1980. In 1980, the mortality risks of urban and rural middle-aged adults were virtually identical (only 2 percent difference). By 1989, rural adults were 30 percent more likely to die than urban adults. If rural adults had had the same improvement in mortality as urban adults, 288 rural middle-aged adults would not have died in 1989.

Cancer, heart disease, COPD and stroke death rates in 1989 for urban adults were at least 16 percent lower than the respective 1980 rates. Rates for none of these causes declined this much for rural adults. Moreover, from 1980 to 1989, rural middle-aged adults had a 18 percent increase in cancer death rates, a 8 percent increase in COPD death rates and a 2 percent increase in stroke death rates. No decline in the stroke death rate was very dismaying, since a declining trend is well-established nationally.

In 1980, only the rural adult death rate for unintentional injuries exceeded the urban death rate by at least 10 percent. By 1989, rural adults exceeded urban adults by more than 10 percent in the death rate of all five leading causes of death. The degrees of exceedance in rank-order were: 220 percent for unintentional injuries; 88 percent for stroke; 34 percent for heart disease; 19 percent for COPD; and 11 percent for cancer.

Urban adult 1989 death rates for cancer, heart disease and stroke were the lowest of the decade. These three causes combined claimed urban adult lives at a 25 percent lower rate in 1989 than in 1980. No death rate for any leading cause was the lowest of the decade for rural adults, although the heart disease rate was the decade's second lowest.

Survival chances were 10 percent worse for rural middle-aged females in 1989 than in 1980 (Table 3-18). Rural males made a small gain (6 percent) in survival chances, while urban males and females made gains three times larger. After yearly declines since 1986, the 1989 mortality rate of urban females became the lowest of the decade. The 1989 total mortality rate of urban males ranked the same. In 1980, per 100,000, for every one death of a rural female (the lowest group), 1.1 urban females, 2 urban males and 2.1 rural males died. By 1989, per 100,000, for every one death of an urban female (the lowest group), 1.2 rural females, 1.7 urban males and 2.2 rural males died.

TABLE 3-16

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 years) BY GENDER, ARIZONA, 1980 AND 1985 - 1989

GENDER/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
MALE							
Diseases of heart	433.8	375.5	342.6	358.4	334.4	300.0	-30.8
Malignant neoplasms	310.4	302.8	312.0	308.9	307.7	272.1	-12.3
Chronic obstructive pulmonary disease	74.4	46.7	50.2	47.8	40.0	43.6	-41.4
Unintentional injuries	75.6	53.0	53.4	52.3	59.0	55.8	-26.2
Motor vehicle-related	39.0	31.5	31.0	30.5	30.0	30.2	-22.6
Other than motor vehicle	36.6	21.5	22.4	21.8	29.0	25.7	-29.8
Alcoholism	48.6	43.8	39.5	35.3	41.3	36.3	-25.3
All causes	1215.4	1081.9	1040.3	1058.2	1010.8	961.4	-20.9
(Number of all deaths)	(2925)	(2916)	(2921)	(3056)	(3032)	(2996)	+2.4
FEMALE							
Malignant neoplasms	261.9	272.6	250.7	260.2	237.8	244.2	-6.8
Diseases of heart	142.9	122.8	111.8	119.6	117.6	111.3	-22.1
Chronic obstructive pulmonary disease	26.1	35.7	29.1	32.1	34.0	33.0	+26.4
Cerebrovascular diseases	38.0	25.4	29.1	22.9	23.9	21.9	-42.4
Unintentional injuries	25.0	21.9	16.4	27.9	23.5	21.0	-16.0
Motor vehicle-related	14.9	11.3	10.4	15.7	12.4	13.6	-8.7
Other than motor vehicle	10.1	10.6	6.0	12.2	11.1	7.4	-26.7
All causes	651.7	638.5	592.7	621.7	582.8	575.1	-11.8
(Number of all deaths)	(1747)	(1862)	(1771)	(1897)	(1833)	(1865)	-6.8
TOTAL							
Malignant neoplasms	284.8	287.1	280.4	283.9	271.9	257.9	-9.5
Diseases of heart	280.5	244.1	223.6	235.7	223.4	203.8	-27.3
Chronic obstructive pulmonary disease	48.9	41.0	39.3	39.7	36.9	38.2	-21.9
Unintentional injuries	48.9	36.7	34.4	39.7	40.9	38.1	-22.1
Motor vehicle-related	26.3	20.8	20.4	22.9	21.0	21.7	-17.5
Other than motor vehicle	22.6	15.9	14.0	16.8	19.7	16.4	-27.4
Alcoholism	33.6	30.5	25.4	25.1	27.5	25.2	-25.0
All causes	918.4	851.5	809.5	833.9	791.7	764.4	-16.8
(Number of all deaths)	(4672)	(4778)	(4692)	(4953)	(4865)	(4861)	+4.1

1 Rates are presented per 100,000 population.

2 The five causes with the greatest number of deaths over 1980-1989 period.

TABLE 3-17

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 years) BY URBAN AND RURAL AREAS,[3] ARIZONA, 1980 AND 1985 - 1989

AREA/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Malignant neoplasms	301.2	290.5	275.5	282.4	270.5	251.8	-16.4
Diseases of heart	279.5	240.9	216.8	223.6	206.4	189.3	-32.3
Chronic obstructive pulmonary disease	51.8	43.4	37.9	35.4	34.7	36.6	-29.3
Unintentional injuries	29.9	29.8	28.2	36.0	31.3	29.9	0.0
Motor vehicle-related	16.1	17.4	17.1	21.1	16.1	17.5	+8.7
Other than motor vehicle	13.8	12.4	11.1	14.9	15.2	12.4	-10.1
Cerebrovascular diseases	37.6	29.8	30.2	26.6	22.4	20.6	-45.2
All causes	913.7	835.0	776.9	793.4	742.2	715.9	-21.7
(Number of all deaths)	(3495)	(3556)	(3443)	(3613)	(3510)	(3517)	+0.6
RURAL							
Diseases of heart	283.6	254.3	245.5	275.6	280.4	253.1	-10.8
Malignant neoplasms	235.3	276.5	296.1	288.6	276.9	278.7	+18.4
Unintentional injuries	76.8	58.4	54.2	52.0	72.8	65.7	-14.5
Motor vehicle-related	41.2	31.8	30.8	28.9	37.4	36.0	-12.6
Other than motor vehicle	35.6	26.6	23.5	23.1	35.3	29.7	-16.6
Chronic obstructive pulmonary disease	40.4	33.3	44.0	54.1	44.5	43.6	+7.9
Cerebrovascular diseases	38.0	25.9	27.9	35.4	32.5	38.7	+1.8
All causes	932.4	903.3	915.5	966.9	957.0	929.3	-0.3
(Number of all deaths)	(1177)	(1222)	(1249)	(1340)	(1355)	(1344)	+14.2
STATEWIDE							
Malignant neoplasms	284.8	287.1	280.4	283.9	271.9	257.9	-9.5
Diseases of heart	280.5	244.1	223.6	235.7	223.4	203.8	-27.3
Chronic obstructive pulmonary disease	48.9	41.0	39.3	39.7	36.9	38.2	-21.9
Unintentional injuries	48.9	36.7	34.4	39.7	40.9	38.1	-22.1
Motor vehicle-related	26.3	20.8	20.4	22.9	21.0	21.7	-17.5
Other than motor vehicle	22.6	15.9	14.0	16.8	19.7	16.4	-27.4
Cerebrovascular diseases	37.7	28.9	29.7	28.6	24.7	24.7	-34.5
All causes	918.4	851.5	809.5	833.9	791.7	764.4	-16.8
(Number of all deaths)	(4672)	(4778)	(4692)	(4953)	(4865)	(4861)	+4.1

1 Rates are presented per 100,000 population.

2 The five causes with the greatest number of deaths over 1980-1989 period.

3 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

TABLE 3-18

MORTALITY RATES[1] AMONG MIDDLE-AGED
ADULTS (45-64 years) BY GENDER IN URBAN AND RURAL AREAS,[2]
ARIZONA, 1980 AND 1985 - 1989

AREA/GENDER	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Male	1193.1	1062.3	997.1	999.5	930.1	891.7	-25.3
Female	666.0	625.1	582.5	597.6	562.0	547.1	-17.9
Total	913.7	835.0	776.9	793.4	742.2	715.9	-21.7
RURAL							
Male	1281.1	1143.5	1227.0	1253.0	1284.1	1200.5	-6.3
Female	610.5	680.8	625.7	700.1	651.5	668.7	+9.5
Total	932.4	903.3	915.5	966.9	957.0	929.3	-0.3
STATEWIDE							
Male	1215.4	1081.9	1040.3	1058.2	1010.8	961.4	-20.9
Female	651.7	638.5	592.7	621.7	582.8	575.1	-11.8
Total	918.4	851.5	809.5	833.9	791.7	764.4	-16.8

1 Rates are presented per 100,000 population.
2 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

Elderly Mortality

The elderly (65 years and older) population grew 48 percent from 1980 to 455,948 persons in 1989. Senior adults comprised 12.2 percent of the total population in 1989 compared to 11.3 percent in 1980. Life ended for 19,516 elderly persons in 1989 for a mortality rate of 4,280.3 per 100,000 (Table 3-19). The 1989 elderly mortality rate was not the lowest of the decade, instead the 1981 rate (4,270.6) was.

During an average week of 1989, 375 elderly persons died. On an average day during 1989, 20 senior adults died from heart disease, 12 died from cancer, 4 died from cerebrovascular diseases (stroke), 3-4 died from chronic obstructive pulmonary disease (COPD), 3 died from pneumonia/influenza and 11 died from all other causes.

Only elderly death rates for heart disease and stroke, conditions with many risk factors in common, declined from 1980 to 1989 (Table 3-19). Heart disease death rates declined quite steadily from year-to-year, so the 1989 mortality rate was the lowest of the decade. Steady annual declines were less typical for stroke death rates. The 1989 stroke mortality rate was higher than the annual rates from 1986 to 1988.

Cancer death rates for the elderly started to increase in 1981 and reached their highest level in 1987. The 1988 and 1989 rates differed from the decade-high rate in 1987 by less than one percent. Thus, the elderly ended the decade with a higher risk of dying from cancer than when the decade began and a greater proportion of elderly deaths were caused by cancer in 1989 than in 1980 (23 and 20 percent respectively).

COPD and pneumonia/influenza also claimed elderly lives at higher rates in 1989 than in 1980. The 1989 pneumonia/influenza rate, 16 percent greater than the 1980 rate, shared the ranking as the decade-high with the 1988 rate. COPD reached its decade-high rate in 1986, with the 1989 rate 3 percent lower than this high.

Gender Differences. The 1989 female elderly mortality rate was the decade-high, while the male elderly mortality rate was the decade-low. Increases of at least 15 percent in death rates for cancer, COPD and pneumonia/influenza accounted for the worse survival chances of females in 1989 than in 1980. Moreover, the 1989 female mortality rates for cancer, COPD and pneumonia/influenza were the highest of the decade. The 61 percent increase from 1980 to 1989 in the female COPD death rate merits special concern.

Fewer leading causes of death increased in rate between 1980 and 1989 for males and no leading cause of death increased as much for males as for females. The male cancer and pneumonia/influenza death rates rose by less than 9 percent. Male decreases in heart disease and stroke death rates were as large as or larger than female decreases. Male death rates for each of the leading causes remained higher than female rates in 1989.

Regional Differences. Urban and rural elderly total mortality rates declined by the same amount from 1980 to 1989 (Table 3-20). As in 1980, the rural elderly in 1989 had slightly lower mortality than urban elderly. Heart disease and stroke death rates were lower in 1989 than in 1980 for both urban and rural elderly by almost the same amount. Urban and rural elderly both had increases from 1980 to 1989 in death rates for cancer and COPD, with the increases substantially larger for rural than for urban elderly.

The only difference between the two regional groups in trends from 1980 to 1989 was that pneumonia/influenza death rates increased by 25 percent for the urban elderly but decreased by 7 percent for the rural elderly. From 1980 to 1982, rural compared to urban elderly had a higher death rate for this cause. Urban elderly became the group at higher risk to die from pneumonia/influenza in 1983 and have remained so since. The 1989 pneumonia/influenza death rate for the urban elderly was the highest of the decade.

Rural elderly males were the only region by gender subgroup with no improvement in survival chances between 1980 and 1989 (Table 3-21). In contrast, urban elderly males had the largest improvement and were the only subgroup to have the lowest mortality

rate of the decade in 1989. In 1980, rural males had a 6 percent lower mortality risk than urban males; by 1989, they had a 3 percent higher mortality risk than urban males.

Younger compared to Older Elderly. One demographic trend often discussed during the 1980s was the aging or "graying" of the population as the 21st century is approached and entered. This demographic shift heightened public interest in studying subsets of the 65 years and older population. In 1990, 1989 population denominators became available for two subsets of this population. These denominators permitted calculations of 1989 rates and comparisons with 1980 rates.

One subset, those persons 65 to 74 years of age, is referred to as the younger elderly. The other subset called the older elderly is comprised of persons equal to or older than 75 years of age. Older elderly made up a larger share of the general elderly population in 1989 than in 1980 (37 and 34 percent respectively), with a 1989 population of 168,203 persons.

The younger elderly accounted for 40 percent of elderly deaths in 1980 but 34 percent of elderly deaths in 1989 (Table 3-22). Females had a lower proportion of their deaths occur at the younger ages than did males in 1980 (33 and 45 percent respectively) and in 1989 (29 and 40 percent respectively). Urban compared to rural senior deaths occurred less frequently at the younger ages in both 1980 (39 and 43 percent respectively) and 1989 (33 and 39 percent respectively; Table 3-23).

As expected, total and cause-specific death rates were higher for the older than for the younger elderly in both 1980 and 1989. Also as expected, between 1980 and 1989, cause-specific death rates that decreased did so more for the younger than the older elderly. This differential in the magnitude of decreases between the younger and older elderly applied to both genders (Table 3-22).

It may be expected that the magnitude of increases between 1980 and 1989 would be greater for the older than the younger elderly, namely the opposite of the differential seen for decreases. However, this was not the case in some instances within genders or regions. If the expected differential between younger and older elderly in the magnitude of increases did not occur, it suggested that the cause was becoming more important in causing premature death, i.e. death before the expected years of life was reached.

Death rates for COPD and pneumonia/influenza increased more for younger than older elderly females (Table 3-22). The younger compared to the older elderly in rural regions had a larger increase from 1980 to 1989 in COPD death rates (Table 3-23). In addition, cancer death rates increased for rural younger elderly but decreased for rural older elderly. No discrepancies in the expected magnitude of increases or decreases between the younger and older elderly were seen in the cause-specific death rates of urban or male seniors or in total mortality rates by gender and region (Table 3-24).

Younger elderly females in rural areas had the largest improvement in total mortality between 1980 and 1989, followed by younger elderly urban males, urban females and rural males (Table 3-24). Total death rates of the older elderly increased between 1980 and 1989 for rural males, followed by urban females and rural females. Urban older elderly males, in contrast, had a decrease in total death rates from 1980 to 1989.

TABLE 3-19

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG ELDERLY (65 years and older) BY GENDER, ARIZONA, 1980 AND 1985 - 1989

GENDER/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
MALE							
Diseases of heart	2188.5	1937.6	1946.0	1992.4	1928.0	1866.5	-14.7
Malignant neoplasms	1181.3	1237.0	1236.6	1292.1	1289.1	1243.5	+5.8
Chronic obstructive pulmonary disease	416.8	392.4	418.7	383.4	384.6	373.2	-10.5
Cerebrovascular disease	374.2	346.7	302.2	299.8	292.2	303.6	-18.9
Pneumonia and influenza	202.2	212.2	212.8	212.2	221.7	219.1	+8.4
All causes	5448.8	5222.4	5197.1	5297.5	5284.3	5105.7	-6.3
(Number of all deaths)	(7412)	(8811)	(9011)	(9561)	(9897)	(9905)	+33.6
FEMALE							
Diseases of heart	1477.8	1413.5	1384.0	1348.1	1398.8	1342.2	-9.2
Malignant neoplasms	662.5	725.2	751.3	741.9	741.2	764.3	+15.4
Cerebrovascular disease	394.0	321.6	306.8	320.9	309.9	319.5	-18.9
Chronic obstructive pulmonary disease	136.6	178.8	200.0	197.9	196.5	219.9	+61.0
Pneumonia and influenza	151.2	146.8	165.2	155.0	184.2	189.7	+25.5
All causes	3600.0	3564.0	3596.8	3653.1	3654.6	3669.0	+1.9
(Number of all deaths)	(6168)	(7912)	(8254)	(8789)	(9186)	(9611)	+55.8
TOTAL							
Diseases of heart	1792.3	1639.8	1625.9	1644.8	1624.7	1565.3	-12.7
Malignant neoplasms	892.1	946.2	960.1	977.7	975.1	970.7	+8.8
Cerebrovascular diseases	385.2	332.5	304.8	311.8	302.4	312.8	-18.8
Chronic obstructive pulmonary disease	263.5	271.0	294.1	277.4	276.8	285.1	+8.2
Pneumonia and influenza	173.7	175.1	185.7	179.5	200.2	202.2	+16.4
All causes	4418.2	4280.1	4285.6	4357.9	4351.5	4280.3	-3.1
(Number of all deaths)	(13580)	(16723)	(17265)	(18350)	(19083)	(19516)	+43.7

1 Rates are presented per 100,000 population.

2 The five causes with the greatest number of deaths over 1980-1989 period.

TABLE 3-20

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG ELDERLY (65 years and older) IN URBAN AND RURAL AREAS,[3] ARIZONA, 1980 AND 1985 - 1989

AREA/CAUSE	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Diseases of heart	1825.9	1652.9	1667.1	1695.8	1624.8	1591.4	-12.8
Malignant neoplasms	904.5	945.4	958.8	969.2	988.0	973.0	+7.6
Cerebrovascular disease	390.0	333.4	310.7	318.6	307.9	319.5	-18.1
Chronic obstructive pulmonary disease	273.5	273.8	295.0	281.3	287.7	282.5	+3.3
Pneumonia and influenza	162.9	184.5	191.1	183.4	200.6	4291.6	-3.1
All causes	4430.5	4290.7	4330.3	4390.4	4358.2	(14829)	+41.3
(Number of all deaths)	(10497)	(12816)	(13255)	(14030)	(14495)	1483.6	-11.7
RURAL							
Diseases of heart	1679.5	1580.3	1495.3	1484.5	1624.4	1483.6	-11.7
Malignant neoplasms	850.4	908.5	964.2	1004.8	934.4	963.7	+13.3
Cerebrovascular disease	369.1	325.7	286.3	290.6	285.1	291.6	-21.0
Chronic obstructive pulmonary disease	230.0	259.1	291.4	265.0	242.6	293.5	+27.6
Pneumonia and influenza	210.1	143.0	168.4	167.5	199.2	195.6	-6.9
All causes	4377.0	4200.3	4144.0	4225.5	4330.5	4245.1	-3.0
(Number of all deaths)	(3083)	(3907)	(4010)	(4320)	(4588)	(4687)	+52.0
STATEWIDE							
Diseases of heart	1792.3	1639.8	1625.9	1644.8	1624.7	1565.3	-12.7
Malignant neoplasms	892.1	946.2	960.1	977.7	975.1	970.7	+8.8
Cerebrovascular disease	385.2	332.5	304.8	311.8	302.4	312.8	-18.8
Chronic obstructive pulmonary disease	263.5	271.0	294.1	277.4	276.8	285.1	+8.2
Pneumonia and influenza	173.7	175.1	185.7	179.5	200.2	202.2	+16.4
All Causes	4418.2	4280.1	4285.6	4357.9	4351.5	4280.3	-3.1
(Number of all deaths)	(13580)	(16723)	(17265)	(18350)	(19083)	(19516)	+43.7

1 Rates are presented per 100,000 population.

2 The five causes with the greatest number of deaths over 1980-1989 period.

3 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

TABLE 3-21

MORTALITY RATES[1] AMONG ELDERLY
(65 years and older) BY GENDER IN URBAN AND RURAL AREAS,[2]
ARIZONA, 1980 AND 1985-1989

AREA/GENDER	1980	1985	1986	1987	1988	1989	Percent Change From 1980
URBAN							
Male	5527.2	5285.3	5261.7	5397.6	5281.8	5064.8	-8.4
Female	3602.4	3592.5	3655.5	3664.1	3695.6	3738.8	+3.8
Total	4430.5	4290.7	4330.3	4390.4	4358.2	4291.6	-3.1
RURAL							
Male	5214.4	5040.9	5011.6	5009.9	5302.9	5223.9	+0.2
Female	3591.3	3464.8	3396.7	3615.6	3517.1	3436.6	-4.3
Total	4377.0	4200.3	4144.0	4255.5	4330.5	4245.1	-3.0
STATEWIDE							
Male	5448.8	5222.4	5197.1	5297.5	5287.3	5105.7	-6.3
Female	3600.0	3564.0	3596.8	3653.1	3654.6	3669.0	+1.9
Total	4418.2	4280.1	4285.6	4357.9	4351.5	4280.3	-3.1

1 Rates are presented per 100,000 population.
2 Maricopa and Pima counties comprise Arizona's urban areas while the remaining counties represent its rural areas.

TABLE 3-22

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG ELDERLY (65-74 AND 75 YEARS AND OLDER) BY GENDER, ARIZONA, 1980 AND 1989

	1980			1989			Percent Change from 1980 to 1989:		
GENDER/CAUSE	Total 65+	65-74	75+	Total 65+	65-74	75+	Total 65+	65-74	75+
MALE									
Diseases of heart	2188.5	1414.8	3853.6	1866.5	1093.3	3412.8	-14.7	-22.7	-11.4
Malignant neoplasms	1181.3	905.5	1775.0	1249.5	929.4	1889.7	+5.8	+2.6	+6.5
Chronic obstructive pulmonary disease	416.8	320.9	644.2	373.2	246.7	626.3	-10.5	-23.1	-2.8
Cerebrovascular disease	374.2	183.0	785.5	303.6	127.6	655.7	-18.9	-30.3	-16.5
Pneumonia and influenza	202.2	71.1	484.3	219.1	66.5	524.2	+8.4	-6.5	+8.2
All causes	5448.8	3622.0	9380.1	5105.7	3050.3	9216.3	-6.3	-15.8	-1.8
(Number of all deaths)	(7412)	(3364)	(4048)	(9905)	(3945)	(5960)	+33.6	+17.3	+47.2
FEMALE									
Diseases of heart	1477.8	644.4	2944.3	1342.2	499.3	2632.0	-9.2	-22.5	-1.6
Malignant neoplasms	662.5	541.9	874.6	764.3	585.8	1037.3	+15.4	+8.1	+18.6
Cerebrovascular disease	394.0	130.0	858.5	319.5	90.3	670.3	-18.9	-30.5	-21.9
Chronic obstructive pulmonary disease	136.6	96.1	207.8	219.9	157.8	314.9	+61.0	+64.2	+51.5
Pneumonia and influenza	151.2	30.2	364.0	189.7	40.0	418.2	+25.5	+33.8	+14.9
All causes	3600.0	1867.4	6585.1	3669.0	1753.0	6600.7	+1.9	-6.1	+0.2
(Number of all deaths)	(6168)	(2040)	(4128)	(9611)	(2777)	(6834)	+55.8	+36.1	+65.6
TOTAL									
Diseases of heart	1792.3	998.4	3317.1	1565.3	766.3	2932.2	-12.7	-23.3	-11.6
Malignant neoplasms	892.1	708.9	1243.8	970.7	740.2	1365.	+8.8	+4.4	+9.7
Cerebrovascular disease	385.2	154.4	828.6	312.8	107.0	664.7	-18.8	-30.7	-19.8
Chronic obstructive pulmonary disease	263.5	199.4	386.7	285.1	197.7	434.6	+8.2	-0.9	+12.4
Pneumonia and influenza	173.7	49.0	413.3	202.2	52.1	459.0	+16.4	+6.3	+11.1
All causes	4418.2	2670.0	7768.8	4280.3	2336.1	7606.3	-3.1	-12.5	-2.1
(Number of all deaths)	(13580)	(5404)	(8176)	(19516)	(6722)	(12794)	+43.7	+24.4	+56.5

1 Rates are presented per 100,000 population.

2 The five causes with the greatest number of deaths over 1980-1989 period.

TABLE 3-23

MORTALITY RATES[1] FOR THE FIVE LEADING CAUSES[2] OF DEATH AMONG ELDERLY (65-74 AND 75 YEARS AND OLDER) IN URBAN AND RURAL AREAS[3] ARIZONA, 1980 AND 1989

	1980			1989			Percent Change from 1980 to 1989:		
AREA/CAUSE	Total 65+	65-74	75+	Total 65+	65-74	75+	Total 65+	65-74	75+
URBAN									
Diseases of heart	1825.9	994.4	3362.2	1591.4	765.3	2885.7	-12.8	-23.0	-14.2
Malignant neoplasms	904.5	719.4	1247.6	973.0	748.7	1324.4	+7.6	+4.1	+6.2
Cerebrovascular disease	390.0	146.6	839.4	319.5	102.9	658.9	-18.1	-29.8	-21.5
Chronic obstructive pulmonary disease	273.5	212.4	386.7	282.5	195.8	418.2	+3.3	-7.8	+8.2
Pneumonia and influenza	162.9	46.9	377.1	204.3	50.3	445.7	+25.4	+7.3	+18.2
All causes	4430.5	2656.9	7709.1	4291.6	2320.9	7378.9	-3.1	-12.7	-4.3
(Number of all deaths)	(10497)	(4077)	(6420)	(14829)	(4895)	(9934)	+41.3	+20.1	+54.7
RURAL									
Diseases of heart	1679.5	1010.9	3146.1	1483.6	769.2	3118.4	-11.7	-23.9	-0.9
Malignant neoplasms	850.4	676.0	1830.3	963.7	717.1	1527.9	+13.3	+6.1	-16.5
Cerebrovascular disease	369.1	178.8	969.8	291.6	118.4	688.0	-21.0	-33.8	-29.1
Chronic obstructive pulmonary disease	230.0	158.2	473.5	293.5	203.0	500.4	+27.6	+28.3	+5.7
Pneumonia and influenza	210.1	55.5	550.9	195.6	57.3	512.3	-6.9	+3.2	-7.0
All causes	4377.0	2726.6	7994.9	4245.1	2377.8	8518.2	-3.0	-12.8	+6.6
(Number of all deaths)	(3083)	(1327)	(1756)	(4687)	(1827)	(2860)	+52.0	+37.7	+62.9
STATEWIDE									
Diseases of heart	1792.3	998.4	3317.1	1565.3	766.3	2932.2	-12.7	-23.3	-11.6
Malignant neoplasms	892.1	708.9	1243.8	970.7	740.2	1365.0	+8.8	+4.4	+9.7
Cerebrovascular disease	385.2	154.4	828.6	312.8	107.0	664.7	-18.8	-30.7	-19.8
Chronic obstructive pulmonary disease	263.5	199.4	386.7	285.1	197.7	434.6	+8.2	-0.9	+12.4
Pneumonia and influenza	173.7	49.0	413.3	202.2	52.1	459.0	+16.4	+6.3	+11.1
All causes	4418.2	2670.0	7768.8	4280.3	2336.1	7606.3	-3.1	-12.5	-2.1
(Number of all deaths)	(13580)	(5404)	(8176)	(19516)	(6722)	(12794)	+43.7	+24.4	+56.5

1 Rates are presented per 100,000 population.

2 The five causes with the greatest number of deaths over 1980-1989 period.

3 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

TABLE 3-24

MORTALITY RATES[1] AMONG ELDERLY
(65-74 AND 75 YEARS AND OLDER) BY GENDER
IN URBAN AND RURAL AREAS[2] ARIZONA, 1980 AND 1989

	1980			1989			Percent Change from 1980 to 1989:		
Area/Gender	Total 65+	65-74	75+	Total 65+	65-74	75+	Total 65+	65-74	75+
Urban									
Male	5527.2	3664.4	9366.8	5064.8	3129.3	8247.1	-8.4	-14.6	-12.0
Female	3602.4	1844.5	6601.8	3738.8	1724.1	6788.7	+3.8	-6.5	+2.8
Total	4430.5	2656.9	7709.1	4291.6	2320.9	7378.9	-3.1	-12.7	-4.3
Rural									
Male	5214.4	3502.9	9425.7	5223.9	3285.8	9658.9	+0.2	-6.2	+2.5
Female	3591.3	1947.5	6841.5	3436.6	1627.9	7576.0	-4.3	-16.4	+10.7
Total	4377.0	2726.6	7994.9	4245.1	2377.8	8518.2	-3.0	-12.8	+6.6
Statewide									
Male	5448.8	3622.0	9380.1	5105.7	3050.3	9216.3	-6.3	-15.8	-1.8
Female	3600.0	1867.4	6585.1	3669.0	1753.0	6600.7	+1.9	-6.1	+0.2
Total	4418.2	2670.0	7768.8	4280.3	2336.1	7606.3	-3.1	-12.5	-2.1

1 Rates are presented per 100,000 population.
2 Maricopa and Pima Counties comprise Arizona's urban areas while the remaining counties represent rural areas.

MORBIDITY

Data on morbidity, levels of disease and disability in the population, are obtained for the entire Arizona population for certain infectious diseases that must be reported by law. The Division of Disease Prevention Services conducts surveillance and monitoring of these notifiable diseases and provided the data for this chapter. The Office of Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) Services within that Division prepared the section of this chapter on HIV/AIDS.

Non-Sexually Transmitted Diseases

Vaccine preventable diseases. Arizona experienced epidemics of measles in 1989 and of pertussis (whooping cough) in both 1988 and 1989, two of the diseases preventable by standard immunization schedules (Table 4-1). A measles epidemic began the decade, with two more occurring in 1985 and 1986. The 1989 epidemic had fewer cases than both earlier epidemics but was as problematic for public health. Maricopa county, with 58 percent of the state's population, had 97 percent of the measles cases (Table 4-2).

The 1988 and 1989 pertussis epidemics had no counterpart earlier in the decade, when the highest incidence rate was 2.3 cases per 100,000 population.[a] Fewer pertussis cases were reported in the 1989 than the 1988 epidemic, for incidence rates of 10.7 and 13.7 respectively. The epidemic was particularly severe in Yavapai county which had an incidence rate of 89.1, twelve times greater than the statewide rate (Table 4-2).

The frequency of reported mumps cases dropped yearly since its peak frequency in 1986. Despite the declining trend, the 1989 incidence rate (3.5) remained higher than the highest incidence rate in the first three years of the decade (2.2). The geographic distribution of 1989 cases paralleled the distribution of the population.

Given the epidemics, Arizona failed to achieve the 1990 objectives for measles and pertussis. The 1990 objective for measles was less than 500 cases nationally and for pertussis was less than 1,000 cases nationally. Based on the fact that Arizona accounts for about 1.5 percent of the national population, to meet the national objectives for 1990 only 8 cases of measles and 15 cases of pertussis should have occurred. Instead, 145 measles and 400 pertussis cases were reported in 1989. Arizona also did not achieve the 1990 objective for mumps, with 131 cases of this disease reported rather than the expected 30 cases.

The vaccine to prevent chickenpox still is not licensed for routine use. However, reported cases of chickenpox dropped 3 percent from its decade-high incidence rate of 294.8 in 1988 to 284.6 in 1989. Santa Cruz county, a rural county bordering on Mexico with sister cities having close ties, had a 1989 incidence rate of reported chickenpox 2.2 times higher than the statewide rate. 1989 was the third year in which physicians and schools had experience with the requirement to report individual cases rather than outbreaks of chickenpox. After this accumulated experience, the reduced incidence rate of chickenpox may represent a true decline in occurrence of the disease.

The vaccine to prevent Haemophilus influenzae type b infection was available for the third consecutive year in 1989. The number of Haemophilus influenzae type b meningitis cases reported in 1989 was the lowest of the last half of the decade. The incidence rate of this disease dropped 31 percent from 2.9 in 1988 to 2.0 in 1989. The 1989 geographic distributions of the population and this disease's incidence conform.

[a] All incidence rates in this section are number of reported cases per 100,000 population, unless specified otherwise. Table 6-1 in Vital Statistics gives yearly populations.

Rubella (German measles) seriously threatens normal development of an infected pregnant woman's fetus and elevates the risk for birth defects. The decade began with an incidence rate of rubella of 1.88 but ended with an incidence of zero for two consecutive years (Table 4-1). This elimination of rubella in 1988 and 1989 meant that Arizona exceeded the 1990 objective which would have lead to an expectation of about 15 cases of rubella reported in Arizona.

Central nervous system infectious diseases. The five-year average[b] incidence rate of aseptic meningitis for the last half of the decade was 3.34 compared to a five-year average rate for the first half of 1.91. This increase of 75 percent indicates that aseptic meningitis imposed a greater burden of morbidity during the closing than the opening years of the decade. However, the 1989 incidence rate (2.71) was 41 percent lower than the decade-high rate in 1986 (4.56). The 1989 burden of morbidity was disproportionately borne by residents of the metropolitan counties, with 84 percent of the cases.

In contrast, the burden of morbidity from viral encephalitis was 26 percent lower in the second than the first half of the decade. The average incidence rate for 1980-84 was 0.54 compared to an average incidence rate for 1985-89 of 0.42.

Since 1986 the reported number of bacterial meningitis cases included two forms of meningitis not included in earlier years of the decade. These two forms of meningitis were subtracted from the annual counts for 1986 through 1989 to permit comparisons across the decade. The five-year average incidence rate in the last half of the decade (0.89; n = 155) was 29 percent greater than the five-year average rate for 1980-84 (0.69; n = 100), indicating that bacterial meningitis exacted a greater morbidity toll as the decade was closing.

In contrast, morbidity attributed to meningococcal meningitis was 18 percent lower in the last half of the decade than the first half, with a five-year average incidence rate of 0.51 and 0.62 respectively. Moreover, the 1989 number of cases of meningococcal meningitis was the lowest of the decade.

Enteric diseases. Based on five-year average incidence rates, shigellosis was the most common enteric disease to afflict people in both the first and second halves of the decade (29.5 and 30.4 respectively). The incidence rate in the last half of the decade was 3 percent higher than the rate of the first half. On average, more than 1,000 people contracted shigellosis annually from 1985 to 1989 compared to an annual average of 854 for 1980-84. The risk of this disease was much higher in Apache county, with a 1989 incidence rate seven times higher than the statewide rate (192.8 and 27.7 respectively).

The 41 percent increase from first to last half of the decade in the average five-year incidence rate for campylobacteriosis was the largest rise among the enteric diseases (12.5 and 17.6 respectively). Campylobacteriosis became the third most common enteric disease in the second half of the decade, displacing salmonellosis which ranked third in the first half. Ninety-three out of 100 cases of campylobacteriosis in 1989 occurred to residents of the two metropolitan counties.

Giardiasis ranked second in incidence in both halves of the decade. The rate of this disease increased 21 percent from 21.9 for 1980-84 to 26.5 for 1985-89. Maricopa county residents were heavily overrepresented among reported cases in 1989, accounting for 87 percent of the caseload. In contrast, residents of this metropolitan county were less likely to contract salmonellosis (54 percent). The average incidence rate of salmonellosis increased 7 percent from 13.4 for 1980-84 to 14.4 for 1985-89.

b Averaging over years gives a more reliable rate when annual case numbers are low. The average is the sum of cases divided by the sum of populations for the years involved.

Less than 2 cases of amebiasis per 100,000 population were reported in both halves of the decade. The average incidence rate declined 12 percent from 1.6 for 1980-84 to 1.4 for 1985-89. Thirty cases of typhoid fever occurred in the closing 5 years of the decade compared to 47 in the opening 5 years. Neither disease showed a disproportional geographic distribution in 1989.

Coccidioidomycosis or Valley Fever. The 1980 and 1989 incidence rates of Valley Fever differed by only one percent (rates of 7.3 and 7.2 respectively). The incidence of this disease during the decade seemed to happen in three different stages. High cases counts in the first three years resulted in an average incidence rate of 9.4. Reported cases of coccidioidomycosis then fell from 1983 through 1986 for a 34 percent decrease in the average incidence rate to 6.2. Subsequently, reported cases increased again from 1987 to 1989. This resulted in an average incidence rate for 1987-89 of 7.0, a 13 percent increase over the immediately preceding 1983-86 average incidence rate.

Hepatitis. The incidence of hepatitis A has increased yearly starting in 1985 and more than 2,000 cases have been reported annually since 1987. The 1989 incidence rate (75.1) not only was 2.4 times greater than the highest incidence rate of the first half of the decade (30.9 in 1983) but also the highest rate of the decade. One in every 3,289 Arizona residents contracted hepatitis A in 1980 compared to one in 1,332 residents in 1989. Incidence of this disease was much greater among Apache and Pinal county residents, with one in 252 and one in 454 residents becoming ill from hepatitis A respectively.

The incidence of hepatitis B grew annually from 1980, peaked in 1986 and declined yearly thereafter. That recent decrease in reported cases resulted in a 1989 incidence rate that was virtually identical to the 1984 incidence rate, the highest rate of the first half of the decade (15.7 and 15.8 respectively). However, the 1989 rate was 21 percent lower than the 1990 objective of a rate of no more than 20. The objective was not met in Pinal county which had a 1989 incidence rate of 45.1, over twice the objective.

Both the 1989 incidence and incidence rate of non-A, non-B hepatitis were the lowest of the decade. The 1989 incidence rate of 1.4 was 81 percent lower than the peak rate of 7.4 in 1985. This disease was predominately an urban phenomenon in 1989, with Maricopa and Pima counties accounting for 89 percent of the reported cases.

Tuberculosis. The three-year average incidence rate of pulmonary tuberculosis (TB) for the 1980-82 period was 9.7. Each annual incidence rate from 1983 to 1989 has been at least 26 percent lower, with rates ranging from a low of 6.4 to a high of 7.2. The 1989 incidence rate of pulmonary TB of 7.0 was near the upper end of that range. All annual incidence rates from 1983 to 1989 were at least 10 percent better than the rate for the 1990 objective of 8.0. However, the 1989 incidence rates of pulmonary TB for Apache, Navajo, Santa Cruz and Yuma counties were at least 126 percent greater than the 1990 objective.

Tuberculosis can occur as an opportunistic disease in persons infected with HIV if those persons also are infected with the tubercle bacillus. Heightened likelihood of reactivation of TB among people with HIV infection may result in an increased incidence of TB in future years. This development would have importance for future control efforts regarding tuberculosis.

Zoonotic and Vector-Borne diseases. Control of infected animals is critical in the prevention of these diseases since infected animals play a major role in disease transmission to human beings. Rabies has not been reported in a human being since 1983. The number of animals reported to be infected with rabies in 1989 was the lowest of the decade. Both plague and tularemia had zero incidence in 1989, the first year in the decade with no case of either disease. In addition, reported cases of malaria in 1989

were among the decade's lowest.

Other. Both 1988 and 1989 were unique among years of the decade in that no case of Reye's syndrome was reported. The yearly average number of cases of Toxic Shock Syndrome reported from 1984 to 1988 was 12. The 1989 incidence matched that average.

Mortality from non-sexually transmitted infectious diseases. The year in which a person dies from an infectious disease does not necessarily coincide with the year when that person's disease was reported. During the decade, 885 people died from one of the infectious diseases discussed above (Table 4-3), for a ten-year average annual mortality rate of 2.78 per 100,000. Less than one percent of the deaths were due to either sexually transmitted or zoonotic diseases. Tuberculosis was the largest killer with 34 percent of the deaths, followed by Valley Fever with 30 percent, one of the forms of hepatitis with 17 percent, one of the central nervous system diseases with 11 percent, one of the vaccine preventable diseases with 3 percent, Reye's syndrome with 2 percent and one of the enteric diseases with 2 percent.

Bacterial meningitis was responsible for 60 percent of the 97 persons who died from one of the central nervous system diseases during the decade (Table 4-3). The number of deaths did not significantly differ between the two halves of the decade, with 47 occurring in the first and 50 in the second half. The temporal pattern for deaths from Valley Fever was similar, with 132 deaths from this disease during the first five years and 137 deaths during the second five years of the decade.

Valley Fever was listed as the underlying cause of death on more death certificates than was tuberculosis in the last but not the first half of the decade. From 1980 to 1984, 145 people died from pulmonary TB and 171 from all forms of TB. The death toll from TB was lower in the five years ending the decade, with 106 deaths from pulmonary TB and 127 deaths from total TB. In contrast, 132 people died from Valley Fever from 1980 to 1984 compared to 137 from 1985 to 1989.

Among the 152 deaths from any type of hepatitis during the decade, hepatitis B accounted for the largest share at 45 percent, followed by unspecified hepatitis at 36 percent and hepatitis A at 19 percent. Salmonellosis was responsible for seven out of ten of the deaths from any enteric disease during the decade, with little difference in number of deaths in the first compared to the second half of the decade. In contrast, two-thirds of the deaths from Reye's syndrome occurred from 1980 to 1984.

Sexually Transmitted Diseases

Reported cases of gonorrhea progressively declined each year after 1985 (Table 4-1). The 1989 incidence rate of gonorrhea of 149.5 was the lowest of the decade, 62 percent lower than the 1980 incidence rate of 389.0 and 47 percent lower than the national 1990 objective of 280. Moreover, the 1989 incidence rate of gonorrhea was lower than the 1990 U.S. objective for every county in Arizona except Apache which had an incidence rate of 284.7 (Table 4-2).

Cases of pelvic inflammatory disease (PID) resulting from an initial gonococcal infection also were reported at the decade's lowest level in 1989 (Table 4-1). The decline in reported cases that began in 1987 resulted in a 1989 incidence rate of 5.4 per 100,000 females, 28 percent lower than the 1988 rate. The metropolitan counties accounted for 87 percent of the PID cases reported in 1989, with the incidence rates of Maricopa and Pima counties nearly identical (6.1 and 6.3 respectively).

After steady annual increases (except for 1984), penicillin resistant gonorrhea was reported at the highest level of the decade in 1989. However, the 1988 to 1989 increase of 4 percent in reported cases was much smaller than prior annual increases when reported cases often doubled. The 1989 incidence rate of penicillin resistant gonorrhea was 20.9 compared to an average incidence rate for the 1981 to 1984 period of 1.0. Maricopa county had 76 percent of the penicillin resistant gonorrhea cases, with its 1989

incidence rate of 27.5 elevated above the statewide rate by 32 percent.

The 1989 incidence rate of gonorrhea was 54 percent greater for males than for females (181.8 and 118.1 respectively) (Table 4-4). Age-specific incidence rates by gender indicated that females acquire this disease at earlier ages on average than do males. The highest female incidence rate occurred in mid- to late adolescence (15 to 19 years), while the highest incidence rate for males was among 20 to 24 year olds. During the preadolescent years from 10 to 14, the incidence rate of gonorrhea for girls was 2.3 times greater than the incidence rate for boys. The age-specific incidence rates fell below 100 after age 34 for females but not until age 45 for males.

The decade's largest number of primary and secondary syphilis cases was reported in 1989. The five-year average incidence rate was 31 percent higher for the last than the first five years of the decade (8.1 and 6.2 respectively). Moreover, the 1989 incidence rate of primary and secondary syphilis (9.8) was the highest of the decade, 10 percent greater than the 1980 incidence rate of 8.9 and 40 percent greater than the 1990 objective of a 7.0 incidence rate. Eighty-six percent of the 1989 primary and secondary syphilis cases were reported in Maricopa county (Table 4-2), for a county-specific incidence rate of 14.6, 2.1 times greater than the 1990 objective.

Total syphilis cases reported in 1989 were less than the decade's highest level. Two-thirds of the total syphilis cases reported were early syphilis (Tables 4-1 and 4-5), the stage when the disease is communicable and hence the focus of control efforts. The majority (53 percent) of early syphilis cases among females occurred before age 25, while 56 percent of males reported with early syphilis were at least 30 years old. This skewing of the female distribution of reported cases toward younger ages than the male distribution resembled the gender distributions seen for gonorrhea. The male incidence rate of early syphilis exceeded the female incidence rate by 55 percent, almost the identical exceedance noted in the instance of gonorrhea.

Males comprised the majority of both gonorrhea and early syphilis cases reported, while females comprised the majority (84 percent) of chlamydia cases (Table 4-5). Special case finding programs targeted at females accounted for this gender differential in the reported incidence of chlamydia. Females, particularly those of childbearing age, were targeted because untreated chlamydial infection in women may produce PID and infertility. In addition, infants born to untreated, infected women are at risk for ophthalmic and pulmonary infections.

The number of chlamydia cases reported has steadily risen annually since this disease became reportable in 1987 (Table 4-1). This increase largely was due to increased surveillance in Pima county and southern Arizona and in family planning clinics. In 1989, chlamydia displaced gonorrhea as the STD with the highest number of reported cases and incidence rate (162.3). Six counties exceeded the 1989 statewide incidence rate of chlamydia, with the exceedance greatest for Apache county (283 percent), followed by Navajo (259 percent), Coconino (89 percent), Graham (37 percent), Pima (21 percent) and Yuma (10 percent) counties.

Chlamydia was 2.3 times more likely to be reported among females than was gonorrhea in 1989 (Table 4-4). Indeed, chlamydial infections accounted for 67 percent of STDs reported among women in Table 4-5. The age group of females with the highest incidence rate of chlamydia in 1989 were 15 to 19 year olds. Reports of chlamydia were 28 percent more likely among middle to late adolescent females than among 20 to 24 year old females.

Forty-one of every 100,000 children younger than 5 years old were reported to have chlamydia or gonorrhea. The incidence rate of chlamydia compared to gonorrhea was 3.5 times higher among infants and preschoolers. Young boys had a 16 percent higher rate of gonorrhea than girls, while girls had a 39 percent higher rate of chlamydia than did boys.

Annual reports of genital herpes have been greater than 1,300 but less than 1,400 from 1987 to 1989. Except for 1982, the number of genital herpes cases reported in each year prior to 1987 was always lower. Genital herpes is the third most commonly

occurring STD since 1987, with a 1989 incidence rate of 36.1. Maricopa county accounted for 77 percent of the reported cases. Its 1989 incidence rate (48.1) and the 1989 incidence rate for Coconino county (50.1) both exceeded the statewide rate by at least 33 percent.

Unlike gonorrhea or chlamydia, genital herpes cannot be cured. Since genital herpes is not a fatal disease, new cases arising in each year may add to the pool of people infected with the disease who can then transmit the disease to others. Genital herpes also is a threat to newborns. Assuming that people reported with genital herpes since 1981 have not died or left the state, the 1989 prevalence of this disease would be 291.7 per 100,000 population. In other words, one in every 343 people may be infected.

White non-Hispanics comprised the majority of genital herpes cases but the minority of reported cases of chlamydia, total gonorrhea, penicillin resistant gonorrhea, and early and late syphilis in 1989 (Table 4-6). Relative to their proportion of the population (about 4 percent), Blacks were disproportionately represented among the reported cases of each STD in Table 4-6. Their disproportionality was greatest for penicillin resistant gonorrhea, followed by early syphilis, total gonorrhea, late syphilis, genital herpes and chlamydia. Hispanics were overrepresented among reported cases of both early and late syphilis and underrepresented among cases of genital herpes. Native Americans accounted for a disproportional share of reported chlamydia and total gonorrhea cases.

Human Immunodeficiency Virus (HIV) Infection and Acquired Immunodeficiency Syndrome (AIDS)

The epidemic of HIV infection and AIDS continues to worsen in Arizona. Since the first case of AIDS diagnosed in an Arizona resident in 1981, a total of 1,116 cumulative cases of AIDS had been diagnosed in Arizona by the end of 1989 and reported by June 30, 1990 (Table 4-7). An additional 332 cases of AIDS Related Complex (ARC) and 2,123 HIV-positive test results had been diagnosed by the end of 1989 and reported by June 30, 1990. Overall, 60 percent of Arizonans diagnosed with AIDS have died (Table 4-8).

Although the rate of annual increase in the epidemic during later years has leveled off somewhat from the initial exponential rate, each year's number of AIDS cases continues to exceed the number of the previous year. In 1989, 303 new cases of AIDS were diagnosed compared to 277 cases in 1988 and 253 cases in 1987 (Table 4-8).

The largest concentration of reported AIDS cases occurs in the 30 to 39 year old age group (Table 4-7). National studies indicate that the average length of time from infection with HIV to development of AIDS is ten years or longer. Thus, it is not surprising that the highest concentration of reported ARC cases and persons with asymptomatic HIV infection is among individuals in their twenties, followed by persons in their thirties.

Persons diagnosed with AIDS continue to be overwhelmingly male (Table 4-8). The male to female ratio in AIDS cases increased from 13:1 in 1988 to 24:1 in 1989. Twelve Arizona women were diagnosed with AIDS in 1989, down from 20 in 1988 and 17 in 1987.

Of the 303 AIDS cases diagnosed in 1989, 245 (81 percent) were white non-Hispanic, 37 (12 percent) Hispanic and 18 (6 percent) Black (Table 4-9). Using 1980 U.S. Census data for population denominators, these case numbers translate into annual incidence rates per 100,00 population of 12.1 for white non-Hispanics, 8.4 for Hispanics and 24.6 for Blacks. The Black to white non-Hispanic ratio of incidence rates increased from 0.9:1 in 1988 to 2.0:1 in 1989. However, the percent of cumulative AIDS cases among Blacks is almost equivalent to the proportion of Blacks in the population. Native Americans have accounted for less than one percent of the cumulative total of reported AIDS cases.

Geographically, the largest concentration of AIDS cases diagnosed in 1989 continues to be among Maricopa county residents, followed by Pima county residents (Table 4-10). However, all but one county (Greenlee) has reported at least one case of AIDS by the end of 1989. Among the rural counties, Mohave, Pinal, Yavapai and Yuma counties each

cumulatively reported at least 10 cases.

The proportional distribution of risk behaviors given by persons diagnosed with AIDS in 1989 remains similar to previous years (Table 4-11). Of the 303 AIDS cases diagnosed in 1989, 215 (71 percent) were men who reported sexual contact with other men as their sole risk behavior, slightly higher than the 65 percent in this category in 1988. An additional 39 (13 percent) were men who reported both sexual contact with other men and intravenous drug use (IVDU). Another 20 (7 percent) reported IVDU as their sole risk behavior. Transfusion- and hemophilia-associated cases of AIDS continue to decline in the wake of the ability to screen blood supplies that began in 1985.

Intravenous drug use was the most prevalent risk behavior (40 percent) reported by the 60 women diagnosed with AIDS from 1981 to 1989 (Figure 1). Transfusion of an HIV-contaminated blood product was the next most frequent risk (25 percent) among female cumulative AIDS cases, closely followed by heterosexual transmission (22 percent).

Utilizing estimates and projections of the Centers for Disease Control and comparing local HIV seroprevalence rates to other regions of the country, the Arizona Department of Health Services (ADHS) has estimated current and projected future cases of HIV-related disease in Arizona. Currently, ADHS conservatively estimates that approximately 10,000 Arizonans are living with HIV infection, although perhaps 6,000 of these individuals do not know that they are infected with HIV. An estimated 3,500 to 3,800 of these persons could benefit from currently approved treatment, but are not obtaining it because they remain unaware of their HIV status.

By the end of 1993, ADHS expects a cumulative total of 3,000 to 3,700 Arizonans to have been diagnosed with AIDS. Given the level of HIV infection already present in the community, the unawareness of their HIV infection by the majority infected, the long incubation period from infection to AIDS, and the availability of effective treatment to prolong the lives of people infected with HIV, Arizona will continue to feel the effects of HIV-related disease for many years to come.

TABLE 4-1

NUMBER OF REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY CATEGORY, ARIZONA, 1980 - 1989

DISEASE	NUMBER OF CASES									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Vaccine Preventable										
Measles	403	7	17	1	1	241	252	36	4	145
Mumps	46	39	63	97	203	127	209	196	148	131
Pertussis	25	13	27	32	27	49	78	41	492	400
Rubella	51	25	31	8	5	1	2	5	0	0
H Flu Meningitis Type B	51	62	50	63	56	98	117	90	105	75
Chickenpox[1]	NA	NA	182	2,584	5,827	5,255	4,980	9,708	10,597	10,009
Central Nervous System										
Aseptic Meningitis	27	76	33	70	71	89	153	151	85	101
Bacterial Meningitis[2]	13	24	15	24	24	30	168	141	144	124
Meningococcal Meningitis	19	21	18	20	12	23	16	20	13	16
Viral Encephalitis	16	25	16	12	13	17	19	17	15	5
Enteric										
Amebiasis	83	26	35	31	50	40	69	41	40	48
Campylobacteriosis	78	279	343	539	566	565	587	577	667	647
Giardiasis	207	356	435	746	1,432	1,006	965	873	909	848
Salmonellosis (except typhoid)	314	369	404	498	353	416	454	479	578	567
Shigellosis	754	962	740	928	886	787	912	1,187	1,359	1,032
Typhoid	7	10	8	19	3	3	9	4	6	8
Fungal										
Coccidioidomycosis (Valley Fever)	198	342	251	211	211	191	173	205	284	268
Hepatitis										
Hepatitis A	825	503	627	919	777	1,239	1,427	2,044	2,083	2,797
Hepatitis B	184	191	269	365	486	719	890	857	633	586
Non-A Non-B Hepatitis[3]	NA	NA	63	101	138	237	188	134	81	53
Unspecified	879	530	267	198	151	171	151	83	57	70
Sexually Transmitted										
Genital Herpes	NA	1,078	1,563	1,226	853	998	1,061	1,395	1,344	1,343
Gonorrhea	10,575	8,354	8,668	8,477	7,676	8,485	8,030	6,552	5,630	5,566
Gonococcal PID[4]	NA	180	372	346	335	453	464	281	139	102
Resistant Gonorrhea[5]	NA	7	12	51	47	73	113	256	748	778
Syphilis(P&S)[6]	243	69	178	177	239	311	252	304	175	365
Syphilis-Total[7]	533	369	421	501	659	757	695	979	968	833
Chlamydia[8]	NA	NA	NA	NA	NA	NA	NA	2,948	4,881	6,042
Tuberculosis										
Pulmonary TB	283	288	245	213	222	219	215	235	225	260
Total TB	342	342	300	264	273	271	261	277	267	304
Zoonotic										
Human Rabies[9]	0	1	0	0	0	0	0	0	0	0
Animal Rabies	78	30	60	35	54	124	102	84	45	26
Malaria	19	9	13	8	11	12	15	18	13	9
Plague[10]	NA	3	5	10	2	0	1	3	1	0
Tularemia	1	2	1	1	4	4	1	3	1	0
Other										
Reyes Syndrome	5	4	1	1	4	4	3	1	0	0
Toxic Shock Syndrome	10	3	3	4	12	13	9	11	16	12

1 Chickenpox was not a notifiable disease prior to 1982.
2 Effective January 1, 1986, H. flu meningitis and meningococcal meningitis were included in the total case count of bacterial meningitis.
3 Non-A Non-B Hepatitis became a notifiable disease in 1982.
4 PID is pelvic inflammatory disease.
5 Includes PPNG, penicillase producing Neisseria gonorrheae, a form of gonorrhea which destroys penicillin and CMRNG, chromosomally mediated resistant Neisseria gonorrhoeae, a form of gonorrhea which is resistant to penicillin.
6 Primary and secondary syphilis only.
7 Early, late, congenital and other.
8 Chlamydia reporting effective January 28, 1987.
9 1981 case contracted in New Mexico, expired in Tucson.
10 No data available in 1980 for plague.

TABLE 4-2

NUMBER OF REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY CATEGORY FOR EACH COUNTY, ARIZONA, 1989

DISEASE	NUMBER OF REPORTED CASES BY COUNTY															
	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	LaPaz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
Vaccine Preventable																
Measles	145	0	0	0	0	1	0	0	138	1	1	3	0	0	0	1
Mumps	131	0	7	0	0	0	0	2	74	5	1	26	5	5	0	6
Pertussis	400	0	0	3	0	0	0	0	262	0	0	31	8	2	90	4
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H Flu Meningitis Type B	75	2	2	2	0	0	0	0	48	1	2	11	2	0	4	1
Chickenpox	10,009	29	295	79	129	228	75	8	6,174	281	4	1,718	271	195	335	188
Central Nervous System																
Aseptic Meningitis	101	0	1	0	0	0	1	0	52	0	0	33	1	0	0	13
Bacterial Meningitis[1]	124	2	2	6	0	0	1	0	75	3	2	22	4	0	5	2
Meningococcal Meningitis	16	0	0	0	0	0	1	0	11	1	0	2	1	0	0	0
Viral Encephalitis	10	0	0	0	0	0	0	0	3	0	0	1	0	0	0	1
Enteric																
Amebiasis	48	0	1	2	1	0	0	0	28	0	0	10	3	2	0	1
Campylobacteriosis	647	7	3	7	1	1	0	2	423	1	9	176	5	1	6	5
Giardiasis	848	0	2	14	2	0	0	1	738	25	0	46	13	1	5	1
Salmonellosis (except typhoid)	567	37	8	28	4	3	0	2	307	6	10	109	33	4	6	10
Shigellosis	1,032	128	4	22	28	5	0	1	502	6	55	208	46	10	2	15
Typhoid	8	0	0	0	0	0	0	0	4	0	0	2	1	1	0	0
Fungal																
Coccidioidomycosis (Valley Fever)	268	0	1	3	1	0	0	0	172	5	5	70	8	0	4	0
Hepatitis																
Hepatitis A	2,797	263	45	133	8	3	0	27	1,598	32	150	216	249	23	16	34
Hepatitis B	586	3	11	8	1	7	0	2	374	11	2	95	51	4	5	12
Non-A Non-B Hepatitis	53	0	0	1	0	1	0	0	42	1	0	5	1	1	0	1
Unspecified	70	4	4	3	1	0	0	0	13	0	0	36	5	5	2	0
Sexually Transmitted																
Genital Herpes	1,343	6	5	49	4	1	0	1	1,036	7	5	186	12	1	10	20
Gonorrhea[2]	5,566	186	27	118	19	3	1	8	3,949	44	184	832	88	5	16	86
Gonococcal PID[3]	102	4	1	1	0	0	0	0	66	1	3	23	1	0	1	1
Resistant Gonorrhea	778	13	1	3	0	0	0	0	591	1	2	125	11	1	0	0
Syphilis(P&S)[4]	365	2	0	0	1	0	0	0	315	2	11	20	7	0	0	7
Syphilis-Total[5]	833	3	12	6	2	1	0	6	613	5	28	95	22	5	1	33
Chlamydia	6,042	413	79	300	44	21	1	1	2,883	40	463	1,399	96	13	79	166
Tuberculosis																
Pulmonary TB	260	12	5	5	1	2	0	4	118	6	17	52	6	6	7	19
Total TB	304	24	5	6	1	3	0	4	137	7	18	59	8	7	7	20
Zoonotic																
Human Rabies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Animal Rabies	26	0	2	1	0	0	0	1	4	1	0	16	1	0	0	0
Malaria	9	0	0	1	0	0	0	0	4	0	0	1	2	0	1	0
Plague	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tularemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other																
Reyes Syndrome	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Toxic Shock Syndrome	12	0	0	0	0	0	0	0	9	0	1	2	0	0	0	0

1 Effective January 1, 1986, H. flu meningitis and meningococcal meningitis were included in the total case count of bacterial meningitis.
2 PID is pelvic inflammatory disease.
3 Includes PPNG, penicillase producing Neisseria gonorrheae, a form of gonorrhea which destroys penicillin and CMRNG, chromosomally mediated resistant Neisseria gonorrhoeae, a form of gonorrhea which is resistant to penicillin.
4 Primary and secondary syphilis only.
5 Early, late, congenital and other.

TABLE 4-3

NUMBER OF DEATHS FROM SELECTED NOTIFIABLE DISEASES BY CATEGORY AND YEAR, ARIZONA, 1980 - 1989

ICD Code[1]	Disease	NUMBER OF DEATHS									
		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
	Vaccine Preventable										
055	Measles	0	0	0	0	0	0	0	0	0	0
072	Mumps	0	0	0	0	0	0	0	0	0	0
033	Pertussis	0	0	0	0	0	0	0	0	1	0
056	Rubella	0	0	1	0	0	0	0	0	0	1
041.5	H Flu Meningitis Type B	0	0	2	1	1	0	2	0	1	2
052	Chickenpox	2	1	0	3	1	0	2	0	3	2
	Central Nervous System										
047.9	Aseptic Meningitis	0	0	0	3	0	1	0	0	0	3
320.9	Bacterial Meningitis	6	7	4	6	6	4	6	12	4	3
036.0	Meningococcal Meningitis	1	3	1	0	1	1	1	1	0	2
049.9	Viral Encephalitis	3	0	2	2	2	0	6	2	2	2
	Enteric										
006	Amebiasis	0	0	2	0	0	0	0	0	1	1
007.1	Giardiasis	0	0	0	0	0	0	0	0	0	0
003	Salmonellosis (except typhoid)	0	2	0	1	3	3	1	2	0	0
004	Shigellosis	0	0	0	1	0	0	0	0	0	0
002	Typhoid	0	0	0	0	0	0	0	0	0	0
	Fungal										
114	Coccidioidomycosis (Valley Fever)	25	28	28	26	25	37	25	28	22	25
	Hepatitis										
070.0-070.1	Hepatitis A	3	1	2	1	6	4	2	9	0	1
070.2-070.3	Hepatitis B	1	6	7	3	11	5	11	9	6	9
070.4-070.5	Non-A Non-B Hepatitis	0	0	0	0	0	0	0	0	0	0
070.6-070.9	Unspecified	5	5	6	6	5	4	6	7	2	10
	Sexually Transmitted										
054.1	Genital Herpes	0	0	0	0	0	0	0	0	0	0
098.0-098.3	Gonorrhea	0	0	0	0	0	0	0	0	0	0
614.9	Gonococcal PID	0	0	1	0	0	0	0	0	1	0
090-097	Syphilis (total)	0	1	0	0	0	0	0	0	0	0
	Tuberculosis										
010-011	Pulmonary TB	36	35	27	18	29	24	27	17	18	20
010-018	Total TB	41	39	31	29	31	27	31	23	25	21
	Zoonotic										
071	Human Rabies	0	0	0	0	0	0	0	0	0	0
084	Malaria	0	0	0	0	0	0	0	0	0	0
020	Plague	0	0	0	2	1	0	0	1	0	0
021	Tularemia	0	0	0	0	0	0	0	0	0	0
	Other										
331.8	Reyes Syndrome	2	3	0	5	2	2	0	0	2	2
995.0	Toxic Shock Syndrome	0	0	0	0	0	0	0	0	0	0

[1] International Classification of Diseases, Adapted-Ninth Revision; Geneva: World Health Organization, 1977.

TABLE 4-4

RATES[1] OF GONORRHEA, CHLAMYDIA AND EARLY SYPHILIS BY AGE AND GENDER, ARIZONA, 1989

Age Group	GONORRHEA			CHLAMYDIA			EARLY SYPHILIS		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	11.8	10.2	11.0	29.4	40.8	35.0	0	0	0
5-9	3.8	3.2	3.5	0.8	9.5	5.1	0	0	0
10-14	17.4	40.0	27.9	5.8	55.9	30.4	2.5	5.1	3.8
15-19	555.6	686.8	620.4	163.2	1,529.8	837.7	24.8	36.0	30.3
20-24	616.0	398.6	508.4	213.9	1,194.6	699.7	39.7	47.3	43.5
25-29	408.6	260.6	336.3	117.8	498.1	307.1	36.8	31.3	34.2
30-34	272.3	127.8	201.5	56.0	214.2	134.6	38.0	12.4	25.4
35-39	202.8	81.9	143.2	35.2	105.8	70.0	22.5	11.6	17.1
40-44	106.8	30.7	69.3	28.2	54.4	41.1	30.8	11.4	21.2
45-54	76.0	7.1	41.4	12.0	25.3	18.6	20.0	2.9	11.0
55-64	34.8	0.7	17.0	3.6	14.6	9.4	10.9	0.7	5.6
65 Over	5.1	1.1	2.8	4.1	2.3	3.0	3.1	0	1.3
Total	181.8	118.1	149.5	52.7	269.1	162.3	18.3	11.8	15.0

[1] Rates per 100,000 population.

TABLE 4-5

FREQUENCY OF REPORTED CASES OF GONORRHEA, CHLAMYDIA AND EARLY SYPHILIS
BY AGE AND GENDER, ARIZONA, 1989

Age Group	GONORRHEA			CHLAMYDIA			EARLY SYPHILIS		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	18	15	33	45	60	105	0	0	0
5-9	5	4	9	1	12	13	0	0	0
10-14	21	46	67	7	66	73	3	6	9
15-19	650	783	1,433	191	1,744	1,935	29	41	70
20-24	930	590	1,520	323	1,769	2,092	60	70	130
25-29	666	417	1,083	192	797	989	60	50	110
30-34	452	207	659	93	347	440	63	20	83
35-39	288	113	401	50	146	196	32	16	48
40-44	125	35	160	33	62	95	36	13	49
45-54	127	12	139	20	43	63	32	5	37
55-64	48	1	49	5	22	27	15	1	16
65-Over	10	3	13	8	6	14	6	0	6
Total	3,340	2,226	5,566	968	5,074	6,042	336	222	558

TABLE 4-6

FREQUENCY OF REPORTED CASES AND PERCENT DISTRIBUTION OF EARLY AND LATE SYPHILIS, GONORRHEA, CHLAMYDIA AND HERPES BY ETHNICITY, ARIZONA, 1989

Race/Ethnic Group	Syphilis				Gonorrhea				Chlamydia		Herpes	
	Early		Late		Resistant		Total					
White[1]	110	19.7%	56	20.4%	116	15.5%	1,217	21.9%	2,025	33.5%	860	64.0%
Black[1]	242	43.4%	38	13.8%	411	55.0%	2,137	38.4%	385	6.4%	93	6.9%
Hispanic	151	27.1%	137	49.8%	145	19.4%	1,136	20.4%	1,013	16.8%	173	12.9%
Asian or Pacific Islander	1	0.2%	6	2.2%	2	0.3%	10	0.2%	17	0.3%	0	0.0%
American Indian or Alaskan Native	47	8.4%	22	8.0%	26	3.5%	598	10.7%	1,477	24.5%	21	1.6%
Not Specified	7	1.3%	16	5.8%	48	6.4%	468	8.4%	1,125	18.6%	196	14.6%
Total	558	100.0%	275	100.0%	748	100.0%	5,566	100.0%	6,042	100.0%	1,343	100.0%

[1] Not of Hispanic origin

TABLE 4-7

FREQUENCY DISTRIBUTION OF HIV INFECTION BY SUBCATEGORIES AND AGE GROUP, ARIZONA, 1981-1989

Age Group (Years)	AIDS	ARC	HIV Ab+	Total
Under 5	4	0	5	9
5 - 12	3	4	4	11
13 - 19	7	2	31	40
20 - 29	271	118	801	1190
30 - 39	497	115	717	1329
40 - 49	224	69	311	604
Unknown	-	-	148	148
Total	1116	332	2123	3571

TABLE 4-8

GENDER DISTRIBUTION OF REPORTED AIDS CASES BY YEAR OF DIAGNOSIS AND ANNUAL CASE FATALITY RATES, ARIZONA, 1981-1989

	1981-83	1984	1985	1986	1987	1988	1989	Total
# Male Cases	13	23	86	150	236	257	291	1056
# Female Cases	1	4	2	4	17	20	12	60
# Total Cases	14	27	88	154	253	277	303	1116
# Known Deaths	12	25	73	116	166	156	124	672
% Mortality	86	93	83	75	66	56	41	60

TABLE 4-9

DISTRIBUTION OF REPORTED AIDS CASES BY YEAR OF DIAGNOSIS AND ETHNIC GROUP AND RATES[1] FOR CUMULATIVE TOTAL, ARIZONA, 1981-1989

Ethnicity	1981-83	1984	1985	1986	1987	1988	1989	Total	Rate
White	11	23	78	135	214	239	245	945	46.6
Black	0	1	4	4	10	8	18	45	61.4
Hispanic	2	2	4	15	24	25	37	109	24.7
Native American	0	1	0	0	3	4	2	10	6.9
Asian	1	0	1	0	0	0	1	3	14.5
Unknown	0	0	1	0	2	1	0	4	33.3

[1] Cases per 100,000 population based on 1980 Census population data.

TABLE 4-10

DISTRIBUTION OF REPORTED AIDS CASES BY YEAR OF DIAGNOSIS AND COUNTY, ARIZONA, 1981-1989

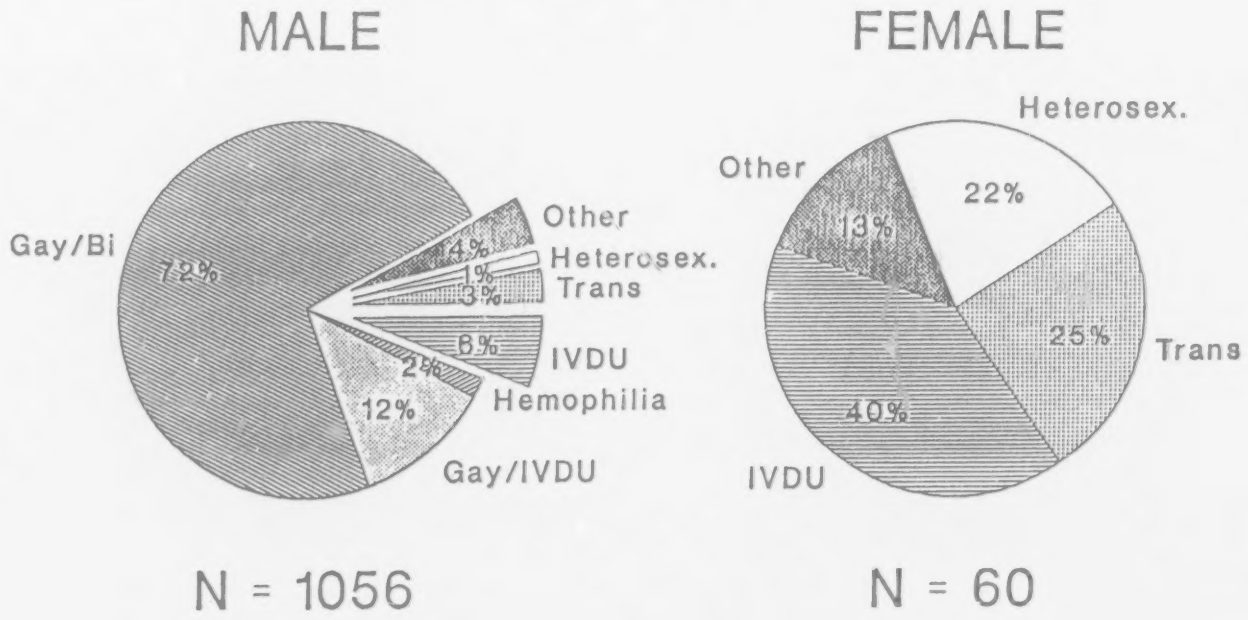
County	1981-83	1984	1985	1986	1987	1988	1989	Total
Apache	0	0	0	0	2	2	1	5
Cochise	1	0	1	0	2	3	2	9
Coconino	0	0	0	1	0	4	3	8
Gila	0	1	0	0	1	0	2	4
Graham	0	0	0	0	0	0	1	1
Greenlee	0	0	0	0	0	0	0	0
La Paz	0	0	0	0	1	1	0	2
Maricopa	10	20	63	115	191	196	237	832
Mohave	0	0	0	1	2	4	3	10
Navajo	0	0	0	0	1	1	1	3
Pima	2	4	24	31	47	51	43	202
Pinal	1	1	0	5	2	1	1	11
Santa Cruz	0	0	0	0	0	0	2	2
Yavapai	0	1	0	1	2	4	3	11
Yuma	0	0	0	0	1	9	4	14
Unknown	0	0	0	0	1	1	0	2
Total	14	27	88	154	253	277	303	1116

TABLE 4-11

DISTRIBUTION OF REPORTED AIDS CASES BY YEAR OF DIAGNOSIS AND TRANSMISSION CATEGORY, ARIZONA, 1981-1989

Transmission	1981-83	1984	1985	1986	1987	1988	1989	Total
Gay/Bisexual Male	9	18	66	109	168	181	215	766
IV Drug User	1	2	5	9	25	27	20	89
Gay/IV Drug User	3	3	8	19	20	33	39	125
Adult Hemophiliac	0	1	2	4	6	5	0	18
Heterosexual Contact	0	0	1	2	9	7	6	25
Adult Transfusion	1	2	2	7	16	10	7	45
Adult Undetermined	0	1	4	3	6	14	13	41
Pediatric Hemophiliac	0	0	0	0	3	0	0	3
Pediatric Transfusion	0	0	0	1	0	0	0	1
Mother with HIV-Risk	0	0	0	0	0	0	3	3

FIGURE 16.
PROPORTION OF ARIZONA AIDS CASES WITH RISK BEHAVIOR BY GENDER, 1981 - 1989



As of 06/30/90

ADHS Office of HIV/AIDS Services

SPECIAL SECTION
NATIONAL PUBLIC HEALTH OBJECTIVES AND THE STATUS OF ARIZONA

The special section is devoted to a comparison between the 1989 status of Arizonans and two sets of national public health objectives. The first set of national health objectives was for the Year 1990 released by the U.S. Public Health Service when the 1980s began. The second set was for the Year 2000 and were given in the publication Healthy People 2000 released in September 1990. Comparisons between Arizona in 1989 and the national health objectives for either the Year 1990 or the Year 2000 were, of course, limited to those objectives for which Arizona had data available. Arizona had data available to measure progress in improving health status for a minority of the objectives of either year. The comparisons were done in the programmatic areas below.

Pregnancy and Infant Health
Immunization and Infectious Diseases
Sexually Transmitted Diseases
Child and Adolescent Health
Chronic Diseases
Injury Mortality
HIV Infection
Dental Health
Tobacco Use
Alcohol and Other Drugs
Surveillance, Monitoring and Evaluation

Forty (40) comparisons were done between Arizona in 1989 and the Year 1990 national health objectives. Arizona failed to achieve 82.5 percent of the measurable Year 1990 objectives, with the failures particularly large in the areas of pregnancy and infant health, immunization, child and adolescent health and injury mortality. Failing to make greater progress toward the 1990 objectives usually means a even greater distance to travel to improve health status in those areas by the Year 2000.

Substantial reductions in death rates and improvements in basic preventive programs are required for Arizona to achieve 53 of the 67 measurable health objectives for the Year 2000. Just as importantly, Arizona needs to improve its capacity to monitor critical aspects of health status that have never been monitored. Not being able to monitor is not to know the degree to which the people's health is jeopardized by conditions such as diabetes, poor nutrition and head injury. The special section concludes with a partial and illustrative list of health objectives that Arizona cannot measure.

TABLE 5-1

COMPARISON OF 1989 ARIZONA STANDING WITH RESPECT TO YEAR 1990 AND YEAR 2000 NATIONAL HEALTH OBJECTIVES BY PROGRAMMATIC AREA[a]

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
PREGNANCY AND INFANT HEALTH				
INFANT MORTALITY RATE (IMR)	NMT 9 deaths per 1,000 live births	NMT 7 deaths per 1,000 live births	EQ 9.1 deaths per 1,000 live births	1.1% GT the 1990 objective; requires a 23% reduction by the year 2000. (11 states NMT or LT in 1985-87).
INFANT MORTALITY RATE (IMR)	No county has an IMR GT 12 deaths per 1,000 live births	No county has an IMR GT 11 deaths per 1,00 live births	Mohave county IMR EQ 17.0	GT the 1990 objective; requires a 35% reduction by the year 2000;
			Navajo county IMR EQ 15.6	GT the 1990 objective; requires a 30% reduction by the year 2000;
			Santa Cruz county IMR EQ 11.4	LT the 1990 objective; requires a 4% reduction by the year 2000;
			Graham county IMR EQ 11.2	LT the 1990 objective; requires a 2.5% reduction by the year 2000
INFANT MORTALITY RATE (IMR)	No ethnic group has an IMR GT 12 deaths per 1,000 live births	No ethnic group has an IMR GT 11 deaths per 1,000 live births	Black IMR EQ 17.5	GT the 1990 objective; requires a 37% reduction by the year 2000
NEONATAL DEATH RATE	NMT 6.5 deaths per 1,000 live births	NMT 4.5 deaths per 1,000 live births	EQ 5.5	LT the 1990 objective; requires a 18% reduction to meet the year 2000 objective

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
PERINATAL DEATH RATE	NMT 5.5 deaths per 1,000 live births	No objective	EQ 8.8	An excess of 60% over the 1990 objective
PRENATAL CARE IN THE FIRST TRIMESTER	NMT 10% of women giving birth in any county will not have prenatal care in the first trimester	NMT 10% of women giving birth in any county will not have prenatal care in the first trimester	All counties exceed the objectives from a low of 180% (Maricopa county) to a high of 460% (Yuma county)	Among 67,128 women giving birth in 1989, 22,820 received late or no prenatal care. Among 67,128 women giving birth in 1989, 21,788 were covered by AHCCCS or IHS; of those 11,900 received late or no care.
PRENATAL CARE IN THE FIRST TRIMESTER	NMT 10% of women giving birth in any ethnic group will not have prenatal care in the first trimester	NMT 10% of women giving birth in any ethnic group will not have prenatal care in the first trimester	All ethnic groups exceed the objectives	25% of white non-Hispanic women; 47% of Hispanic women; 42% of Black women; 52% of Native American women received late or no prenatal care
LOW BIRTH-WEIGHT BIRTHS (LBW)	NMT 5 per 100 live births	NMT 5 per 100 live births	EQ 6.4	GT the objectives; requires a 22% reduction. (7 states EQ or LT in 1988; 19 states LT Arizona overall; 34 states LT Arizona for white LBW rate.)
LOW BIRTH-WEIGHT BIRTHS (LBW)	NMT 9 per 100 live births in any county	NMT 9 per 100 live births in any county	All counties met objectives	4,280 babies weighed less than 5.5 pounds (2,500 g) at birth.
LOW BIRTH-WEIGHT BIRTHS (LBW)	NMT 9 per 100 live births in any ethnic group	NMT 9 per 100 live births in any ethnic group	Black LBW EQ 14.1	Requires a 36% reduction; 23 states LT Arizona in 1988 when rate was 12.4.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
PROPORTION OF INFANTS RECEIVING PRIMARY CARE SERVICES	Virtually all infants should receive recommended primary health care services	At least 90% of babies aged 18 months or younger should receive recommended primary health care services at the appropriate intervals	10% of infants had no visits in 19788 13% of babies 1 to 2 years old had no visits in 1988	6,680 babies born in 1989 had no medical care
MATERNAL MORTALITY	NMT 5 deaths per 100,000 live births	NMT 3.3 deaths per 100,000 live births	EQ 6 deaths per 100,000 live births	GT the 1990 objective; requires a 45% reduction
FETAL ALCOHOL SYNDROME	25% reduction to NMT 0.375 per 1,000 live births	NMT 0.12 per 1,000 live births	EQ 0.39 per 1,000 live births	GT the 1990 objective; requires a 45% reduction to meet the year 2000 objective
FETAL DEATH RATE	No objective	NMT 5 per 1,000 live births	EQ 5.7	Requires a 12% reduction by the year 2000
POSTNEONATAL DEATH RATE	No objective	NMT 2.5 per 1,000 live births	EQ 3.6	Requires a 31% reduction by the year 2000
BLACK POSTNEONATAL DEATH RATE	No objective	NMT 4 per 1,000 live births	EQ 8.4	Requires a 52% reduction by the year 2000
CESAREAN DELIVERY RATE	No objective	NMT 15 per 100 deliveries	EQ 19 per 100 deliveries	Requires a 21% reduction by the year 2000
ABSTINENCE FROM TOBACCO USE BY PREGNANT WOMEN	No objective	At least 90% abstinent	83% were abstinent	Need 8% increase. Among 67,128 women giving birth in 1989, 11,510 smoked during their pregnancy.
SEVERE COMPLICATIONS OF PREGNANCY	No objective	Hospitalizations prior to delivery for severe complications of pregnancy LT 15 per 100 deliveries	Severe complication noted on 24 out of 100 birth records	Data on hospitalizations prior to delivery for severe complications of pregnancy are not available in Arizona. Among 67,128 women giving birth in 1989, 23,190 had some complication during labor and/or delivery.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
IMMUNIZATION AND INFECTIOUS DISEASES				
REPORTED MEASLES CASES	LT 500 per year nationwide	Reduced to zero	145 measles cases reported	RT to 8 cases based on population percent.[b]
REPORTED MUMPS CASES	LT 1,000 cases per year nationwide	LT 500 cases per year nationwide	131 mumps cases reported	RT 10 15 cases in 1990 based on population percent. RT to 8 cases in 2000 based on population percent. Average annual number of reported mumps cases was 162/year from 1985 to 1989.
REPORTED PERTUSSIS CASES	LT 1,000 cases per year nation wide	LT 1,000 cases per year nationwide	401 pertussis cases reported	RT to 15 based on population percent. The lowest number of pertussis cases reported between 1985 and 1989 was 41 in 1987.
REPORTED RUBELLA CASES	LT 1,000 cases per year nationwide	Reduced to zero	No rubella cases reported	Met objective for the year 2000.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

[b]Arizona's population EQ 1.5 percent of the U.S. population.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
PROPORTION OF CHILDREN RECEIVING BASIC IMMUNIZATION SERIES	At least 90% of children should complete basic immunization series by age 2	At least 90% of children should complete basic immunization series by age 2	47% of children completed basic immunization series by age 2	Requires a 91.5% increase. Immunization levels among Arizona's children under age 2[c]: 3 or more doses DTP: 75% 3 or more doses OPV: 66% Measles vaccine: 55% Rubella vaccine: 52% Mumps vaccine: 51% Hib vaccine: 26%
PROPORTION OF FULLY IMMUNIZED CHILDREN	At least 95% of children in day care and K-12 grades fully immunized	At least 95% of children in day care and K-12 grades fully immunized	97% of children in day care and K-12 grades fully immunized	Achieved immunization level is better than objective: 3 or more doses DTP: 97% 3 or more doses POLIO: 98% Measles vaccine: 99% Rubella vaccine: 99%
INCIDENCE RATE OF HEPATITIS A	No objective	NMT 23 per 100,000 people	EQ 75.1 per 100,000 people	Requires a 69 percent reduction
INCIDENCE RATE OF HEPATITIS B	NMT 20 per 100,000 people	NMT 40 per 100,000 people	EQ 15.7 per 100,000 people	21.5% LT the 1990 objective; 61% LT the 2000 objective
INCIDENCE RATE OF TUBERCULOSIS	NMT 8 per 100,000 people	NMT 3.5 per 100,000 people	EQ 8.2 per 100,000 people	GT the year 1990 objective; requires a 57% reduction for year 2000
INCIDENCE RATE OF BACTERIAL MENINGITIS	No objective	NMT 4.7 per 100,000 people	EQ 3.3 per 100,000 people	30% LT the 2000 objective

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

[c]Immunization data are for FY 1989-90.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
SEXUALLY TRANSMITTED DISEASES				
REPORTED GONORRHEA INCIDENCE RATE	NMT 280 per 100,000 people	NMT 225 per 100,000 people	EQ 149.5 per 100,000 people	47% LT the 1990 objective; 34% LT the 2000 objective.
INCIDENCE RATE OF GONOCOCCAL PELVIC INFLAMMATORY DISEASE	NMT 60 per 100,000 females	No objective	EQ 5.4 per 100,000 females	91% LT the 1990 objective.
INCIDENCE RATE OF PRIMARY AND SECONDARY SYPHILIS	NMT 7 per 100,000 people	NMT 10 per 100,000 people	EQ 9.8 per 100,000 people	40% GT the 1990 objective; 2% LT the 2000 objective.
CHILD AND ADOLESCENT HEALTH				
BIRTHS TO GIRLS 14 YEARS OLD OR YOUNGER	Reduced to nearly zero	No objective	159 girls gave birth	
BIRTH RATE FOR GIRLS 15 YEARS OLD	NMT 10 births per 1,000 girls	No objective	EQ 18.1 births per 1,000 girls	A 81% excess.
BIRTH RATE FOR GIRLS 16 YEARS OLD	NMT 25 births per 1,000 girls	No objective	EQ 40.1 births per 1,000 girls	A 60% excess.
BIRTH RATE FOR GIRLS 17 YEARS OLD	NMT 45 births per 1,000 girls	No objective	EQ 68.3 births per 1,000 girls	A 52% excess.
PREGNANCY RATE AMONG GIRLS AGED 15 TO 17	No objective	NMT 50 pregnancies per 1,000 girls	EQ 53.7 pregnancies per 1,000 girls	Requires a 7 percent decline.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
DEATHS AMONG CHILDREN 1 TO 14 YEARS	LT 34 deaths per 100,000 children	NMT 28 deaths per 100,000 children	EQ 35.1 deaths	A 3% excess over the 1990 objective; requires a 20% reduction by the year 2000.
MOTOR VEHICLE FATALITY RATE FOR CHILDREN UNDER 15	NMT 5.5 per 100,000 children	NMT 5.5 per 100,000 children	EQ 8.5 per 100,000 children	Requires a 35% reduction by the year 2000.
DEATHS AMONG ADOLESCENTS AND YOUNG ADULTS 15 TO 24	LT 93 deaths per 100,000 adolescents and young adults	NMT 85 deaths per 100,000 adolescents and young adults	EQ 114.8 deaths per 100,000 adolescents and young adults	23% GT the 1990 objective; requires a 26% reduction to meet the year 2000 objective.
SUICIDE RATE AMONG 15 TO 24 YEAR OLDS	LT 11 per 100,000	NMT 8.2 per 100,000	EQ 20.3 per 100,000	84% GT the 1990 objective; requires a 60% reduction for year 2000.
REPORTS OF CHILDREN ABUSED BY PARENTS	Reduced by 25 percent	Reverse to less than 25.2 per 1,000 children the incidence of maltreatment of children	36% increase in the number of reports from 1987 to 1989	Children younger than age 18.
DROWNING DEATH RATE AMONG CHILDREN AGED 4 AND YOUNGER	NMT 2.3 per 100,000	NMT 2.3 per 100,000	EQ 10.1 per 100,000	Requires a 77% reduction.
RESIDENTIAL FIRE DEATHS AMONG CHILDREN AGED 4 AND YOUNGER	No objective	NMT 3.3 per 100,000	EQ 0.9 per 100,000	73% lower than the objective.
SUICIDES AMONG YOUTH AGED 15 TO 19	No objective	NMT 8.2 per 100,000	EQ 18.7 per 100,000	Requires a 57% reduction.
MURDERS AMONG CHILDREN 3 YEARS OLD AND YOUNGER	No objective	NMT 3.1 per 100,000	EQ 5.7 per 100,000	Requires a 46% reduction. Homicide death rate of infants: was 10.5 in 1989 (a 229% excess) and of children aged 1 to 4 was 4.1 (a 32% excess).
MOTOR VEHICLE FATALITIES AMONG 15-24 YEAR OLDS	No objective	NMT 33 per 100,000	EQ 38.5 per 100,000	Requires a 14% reduction.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
CHRONIC DISEASES				
CORONARY HEART DISEASE DEATHS		Age-adjusted rate NMT 100 per 100,000	Age-adjusted rate EQ 121.3 per 100,000	Requires a 18% reduction.
DEATHS FROM CHRONIC OBSTRUCTIVE PULMONARY DISEASE		Age-adjusted rate NMT 25 per 100,000	Age-adjusted rate EQ 27 per 100,000	Requires a 7% reduction.
STROKE DEATHS		Age-adjusted rate NMT 20 per 100,000	Age-adjusted rate EQ 26.9 per 100,000	Requires a 25% reduction.
CANCER DEATHS		Age-adjusted rate NMT 130 per 100,000	Age-adjusted rate EQ 150.8 per 100,000	Requires a 14% reduction.
LUNG CANCER DEATHS		Age-adjusted rate NMT 42 per 100,000	Age-adjusted rate EQ 33.8 per 100,000	19.5% lower than the objective.
BREAST CANCER DEATHS		Age-adjusted rate NMT 20.6 per 100,000 females	Age-adjusted rate EQ 20.2 per 100,000 females	1.9% lower than the objective.
DEATHS FROM CANCER OF THE UTERINE CERVIX		Age-adjusted rate NMT 1.3 per 100,000 females	Age-adjusted rate EQ 1.65 per 100,000 females	Requires a 21% reduction.
COLORECTAL CANCER DEATHS		Age-adjusted rate NMT 13.2 per 100,000	Age-adjusted rate EQ 12.0 per 100,000	9% lower than the objective.
REDUCE ASTHMA MORBIDITY		Reduction in asthma hospitalizations to NMT 160 per 100,000 people	Asthma hospitalizations EQ 236 per 100,000 people	Requires a 32% reduction.[d]

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

[d]Diagnosis Related Group (DRG) 096 and 097.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
INJURY MORTALITY				
HOMICIDE DEATHS		Age-adjusted rate NMT 7.2 per 100,000 people	Age-adjusted rate EQ 9.1 per 100,000 people	Requires a 21% reduction.
SUICIDE DEATHS		Age-adjusted rate NMT 10.5 per 100,000 people	Age-adjusted rate EQ 17.1 per 100,000 people	Requires a 39% reduction.
WEAPON-RELATED VIOLENT DEATHS		Age-adjusted rate NMT 12.9 deaths by firearms per 100,000 people	Age-adjusted rate EQ 17.1 deaths by firearms per 100,000 people	Requires a 25% reduction.
		Age-adjusted rate NMT 2 deaths by knives per 100,000 people.	Age-adjusted rate EQ 2 deaths by knives per 100,000 people	Met objective.
DEATHS CAUSED BY UNINTENTIONAL INJURIES		Age-adjusted rate NMT 29.3 per 100,000 people	Age-adjusted rate EQ 39.2 per 100,000 people	Requires a 25% reduction.
DEATHS CAUSED BY MOTOR VEHICLE CRASHES	Age-adjusted rate NMT 18 per 100,000 people	Age-adjusted rate NMT 17 per 100,000 people	Age-adjusted rate EQ 22.3 per 100,000 people	Requires a 24% reduction.
		1.9 deaths per 100 million vehicles miles traveled	2.6 deaths per 100 million vehicles miles traveled	Requires a 27% reduction.
DEATHS FROM FALLS AND FALL-RELATED INJURIES	Age-adjusted rate NMT 2 per 100,000 people	Age-adjusted rate NMT 2.7 per 100,000 people	Age-adjusted rate EQ 2.9 per 100,000 people	45% greater than the 1990 objective; requires a 7% reduction.
DEATHS FROM FALLS AMONG PERSONS 65 TO 84 YEARS OLD	No objective	NMT 14.4 per 100,000	EQ 18.7 per 100,000	Requires a 23% reduction.
DEATH FROM FALLS AMONG PERSONS AGED 85 AND OLDER	No objective	NMT 105.0 per 100,000	EQ 151.4 per 100,000	Requires a 31% reduction.
DROWNING DEATHS	Age-adjusted rate NMT 3 per 100,000 people	Age-adjusted rate NMT 1.3 per 100,000 people	Age-adjusted rate EQ 2.4 per 100,000 people	Requires a 46% reduction for year 2000.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

[d]Diagnosis Related Group (DRG) 096 and 097.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
DROWNING DEATHS AMONG MEN AGED 15 TO 34	No objective	NMT 2.5 per 100,000	EQ 4.7 per 100,000	Requires a 47% reduction.
RESIDENTIAL FIRE DEATHS	Reduced to 4,500 per year nationwide	Age-adjusted rate NMT 1.5 per 100,000 people	Age-adjusted rate EQ 0.9 per 100,000 people	40% LT the year 2000 objective.
RESIDENTIAL FIRE DEATHS AMONG PEOPLE AGED 65 AND OLDER	No objective	NMT 3.3 per 100,000	EQ 2.6 per 100,000	21% LT the year 2000 objective.
HIV INFECTION				
ANNUAL INCIDENCE OF DIAGNOSED AIDS CASES		Confine the annual incidence of diagnosed AIDS cases to NMT 98,000 cases nationwide	303 AIDS cases diagnosed in 1989	Each year's number of AIDS cases diagnosed in Arizona continues to exceed the number of the previous year. In 1989, 303 new cases of AIDS were diagnosed compared to 277 cases in 1988.
DENTAL HEALTH				
CARIES RATE		Reduce dental caries so that the proportion of children with one or more caries is no more than 35% among children aged 6-8 and to no more than 60% among adolescents aged 15	18.4% of six year olds, 27.5% of seven year olds, 36.8% of eight year olds, and 75.4% of 15 year olds had one or more curious lesion.	The number of children who have one or more curious lesions must be reduced by 5% in 8 year olds and 20% in 15 year olds to meet the year 2000 national objectives.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
CARIES RATE		Reduce untreated dental caries so that the proportion of children with untreated caries is no more than 20% among children aged 6-8 and no more than 15% among adolescents aged 15.	In Arizona 9.2% of 6 year olds 17.1% of 7 year olds, 21.3% of 8 year olds and 50.7% of 15 year olds had active (untreated) decay.	Untreated decay in 6 & 7 year olds falls below the 20% level. However, 8 year olds require a 6% decrease and 15 year olds require a 61% decrease to meet objective.
SEALANTS PLACED		Increase to at least 50% the proportion of children who have received protective sealants on the chewing surfaces of permanent molar teeth.	The Dental Pathfinder Survey (1987-1990) revealed that only 11% of Arizona's children aged 5-16 had been treated with dental sealants.	Arizona must increase the percentage of children receiving sealants by 39% to meet the year 2000 goals.
POPULATION RECEIVING FLUORIDATED WATER VIA COMMUNITY WATER SYSTEMS		Increase to at least 75% the proportion of people served by community water systems providing optimal levels of fluoride.	Approximately 54% of Arizona's population is served by water systems providing optimal levels of fluoride	A 38% increase in the population receiving fluoridated water will be required by the year 2000.
NUMBER OF CHILDREN ENTERING SCHOOL WHO HAVE NOT HAD A DENTAL SCREENING		Increase to at least 90% the proportion of all children entering school programs for the first time who have received an oral health screening, referral, and follow-up for necessary diagnostic, preventive, and treatment services	According to the 1988-89 Pathfinder Dental Survey 15.9% of all children and 18.9% of AHCCCS children between the ages of 5 and 16 had never seen a dentist	A 37% increase in all children receiving an oral health screening, referral, and follow-up will be required to fulfil this objective.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
NUMBER OF LONG TERM CARE FACILITIES IN COMPLIANCE		Extend to all long term institutional facilities the requirement that oral examinations and services be provided no later than 90 days after entry into these facilities	The state does not have a mechanism in place to assure compliance with this objective. A system for evaluating the facilities, assuring compliance, and reporting will be required	As of October 1, 1990 federal regulations require nursing homes receiving federal Medicare and Medicaid funds to provide or obtain routine and emergency dental services to meet the needs of each resident.
CRANIOFACIAL		Increase to at least 40 the number of states that have an effective system for recording and referring infants with cleft lips and/or palates to craniofacial anomaly teams	In Arizona Children's Rehabilitative Services is responsible for a coordinated referral system for children with craniofacial anomalies	This objective has been met.
MOUTH PROTECTION POLICIES IN PLACE IN THE SCHOOLS		Extend requirement of the use of effective head, face, eye, and mouth protection to all organizations, agencies, and institutions sponsoring sporting and recreation events that pose risks of injury.	At present Arizona high schools require mouth protection for football.	The requirement for mouth protection for all contract sports is the goal for the year 2000.
TOBACCO USE				
PROPORTION OF POPULATION SMOKING CIGARETTES	No objective	NMT 15% of adults	EQ 25.2% of Arizonans 18 years of age and older; 24.4% of women, 26.1% of men	Requires a 40% reduction. Requires a 39% reduction. Requires a 43% reduction.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
ALCOHOL AND OTHER DRUGS				
CIRRHOSIS DEATHS	Age-adjusted rate NMT 12.0 per 100,000	Age-adjusted rate NMT 6.0 per 100,000	Age-adjusted rate EQ 5.8 per 100,000	52% lower than the 1990 objective; 3.3% lower than the year 2000 objective.
DRUG-RELATED DEATHS	Age-adjusted rate NMT 2.0 per 100,000	Age-adjusted rate NMT 3.0 per 100,000	Age-adjusted rate EQ 4.9 pr 100,000	145% greater than the 1990 objective; requires a 39% reduction by the year 2000.
SURVEILLANCE, MONITORING, EVALUATION				
HEALTH STATUS INDICATORS AND DATA SYSTEMS	Develop and implement health status indicators and data systems to trace changes in the health status and progress in objectives			Mortality and natality statistics are the only readily available source of data in Arizona. However, for many health problems, measures of mortality are not satisfactory. Also, selection of a single cause for statistics of mortality obscures our understanding of the disease or injury that initiated events resulting in death and/or about other significant conditions contributing to death. Multiple condition coding is necessary to provide insights into how deaths and disabilities might be prevented. No central file of marriage and divorce records has been established in Arizona. There are only two other states in the nation - New Mexico and Oklahoma - for which the only available information is the total counts of marriages and divorces. Data on children of divorce, remarriages and subsequent divorces are not available in Arizona. There is no Linked Infant Birth and Death Record File in Arizona. The linkage of vital records would permit the assessment of the impact of out-of-range of factors on infant and child physical and psychological development. By identifying problems in maternal and infant care, health planners could target high-risk groups for more intensive interventions. Arizona cannot address the achievement of objectives dealing with minority health status, chronic diseases, injury surveillance and prevention, physical activity and fitness or violent and abusive behavior because of lack of data.

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:

The Year 2000 Objectives address essential aspects of children's and youth's health. Arizona cannot address their achievement because it lacks the basic data.

WHAT ARIZONA DOES NOT KNOW ABOUT CHARACTERISTICS OF ITS CHILDREN AND YOUTH TARGETED IN THE YEAR 2000 OBJECTIVES INCLUDE:

1) reducing growth retardation among low-income children aged 5 and younger
2) reducing the prevalence of mental disorders among children and adolescents
3) reversing the rising incidence of maltreatment (physical abuse, sexual abuse, emotional abuse and neglect) among children younger than age 18
4) reducing emergency department treatment of nonfatal poisonings among children aged 4 and younger
5) reducing asthma morbidity among children aged 14 and younger as measured by reductions in asthma hospitalizations
6) reducing the prevalence of harmful blood lead levels among children 6 months to 5 years of age
7) reducing the prevalence of serious mental retardation among school-aged children
8) reducing infectious diarrhea among children in licensed child care centers and children in programs with an Individualized Education Program or Individualized Health Plan
9) reducing middle ear infections among children aged 4 and younger as measured by days of restricted activity or school absenteeism
10) reducing pneumonia-related days of restricted activity among children aged 4 and younger
11) increasing the proportion of children aged 6 to 17 who engage regularly in leisure time physical activity for at least 30 minutes per day
12) reducing the proportion of children aged 6 to 17 who engage in no leisure time physical activity
13) reducing iron deficiency among children aged 1 to 4 and among women of childbearing age
14) reducing the initiation of cigarette smoking by children and adolescents so a lower proportion are regular smokers by age 20
15) reducing the proportion of children aged 6 and younger who are regularly exposed to tobacco smoke at home
16) achieving access for all disadvantaged children and children with disabilities to high quality and developmentally appropriate preschool programs

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
		17) increasing use of occupant protection systems for at least 95 percent of children aged 4 or younger who are motor vehicle occupants		
		18) increasing the proportion of homes with children which tested radon concentrations and made modifications to reduce risk if levels were hazardous		
		19) increasing the proportion of primary care providers who routinely refer or screen infants and children for impairments of vision, hearing, speech and language and assess other developmental milestones as well		
		20) increasing the proportion of children and adolescents in grades K-12 who participate in daily school physical education		
		21) increasing the proportion of children aged 10 to 18 who have discussed human sexuality with their parents and/or received information form a parentally endorsed source		
		22) increasing the proportion of physically or sexually abused children who receive physical and mental evaluation with appropriate follow-up		
		23) reducing the proportion of battered women with children who are turned away from emergency housing due to lack of space		
		24) increasing the proportion of babies aged 18 months and younger who receive recommended primary care services at the appropriate levels		
		25) reducing average annual alcohol consumption by persons aged 14 and older		
		26) increasing the proportion of high school seniors who asosciate social disapproval and risk of physical and/or psychological harm with heavy use of alcohol, occasional use of marijuana and experimentation with cocaine		
		27) reducing use of anabolic steroids among male high school seniors		
		28) reducing the proportion of adolescents who have engaged in sexual intercourse		
		29) increasing the proportion of sexually active, unmarried adolescents who use contraception to prevent pregnancy and provide barrier protection against disease		
		30) increasing the proportion of providers of primary care for children who include assessment of cognitive, emotional and parent-child functioning, with appropriate counseling, referral and follow-up, in their clinical practices		
		31) reducing assault injuries among people aged 12 and older		
		32) reducing rape and attempted rape of women aged 12 and older		
		33) reducing the incidence of injurious suicide attempts among adolescents		
		34) reducing the incidence of weapon-carrying among adolescents 14 to 17		
		35) extending coordinated, comprehensive violence prevention programs to a greater proportion of local jurisdictions with populations over 100,000		

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

INDICATOR	1990 NATIONAL OBJECTIVE	2000 NATIONAL OBJECTIVE	1989 ARIZONA STANDING	COMMENTS:
		36) increasing the high school graduation rate, thereby reducing risks for multiple problem behaviors and poor mental and physical health 37) increasing the proportion of elementary and secondary schools that provide planned and sequential K-12th grade quality school health education 38) increasing the proportion of communities that have established culturally and linguistically appropriate health promotion programs for racial and ethnic minority populations of children and adults 39) reducing the prevalence of overweight among adolescents aged 12 to 19 40) reducing the average age at which children with significant hearing impairment are identified 41) reducing the prevalence of HIV infection among women giving birth to live-born infants 42) increasing the proportion of schools that have age-appropriate HIV education curricula, including instruction on sexually transmitted disease transmission prevention, for students in grades 4-12 43) reducing the prevalence of smokeless tobacco use by males aged 12 to 24	

[a]Abbreviations used: NMT is no more than; EQ is equals; LT is less or lower than; GT is greater than; RT is relative to.

FIGURE 17.
INFANT MORTALITY RATES: ARIZONA AND UNITED STATES, 1980 - 1989 AND NATIONAL HEALTH OBJECTIVES FOR YEAR 1990 AND YEAR 2000

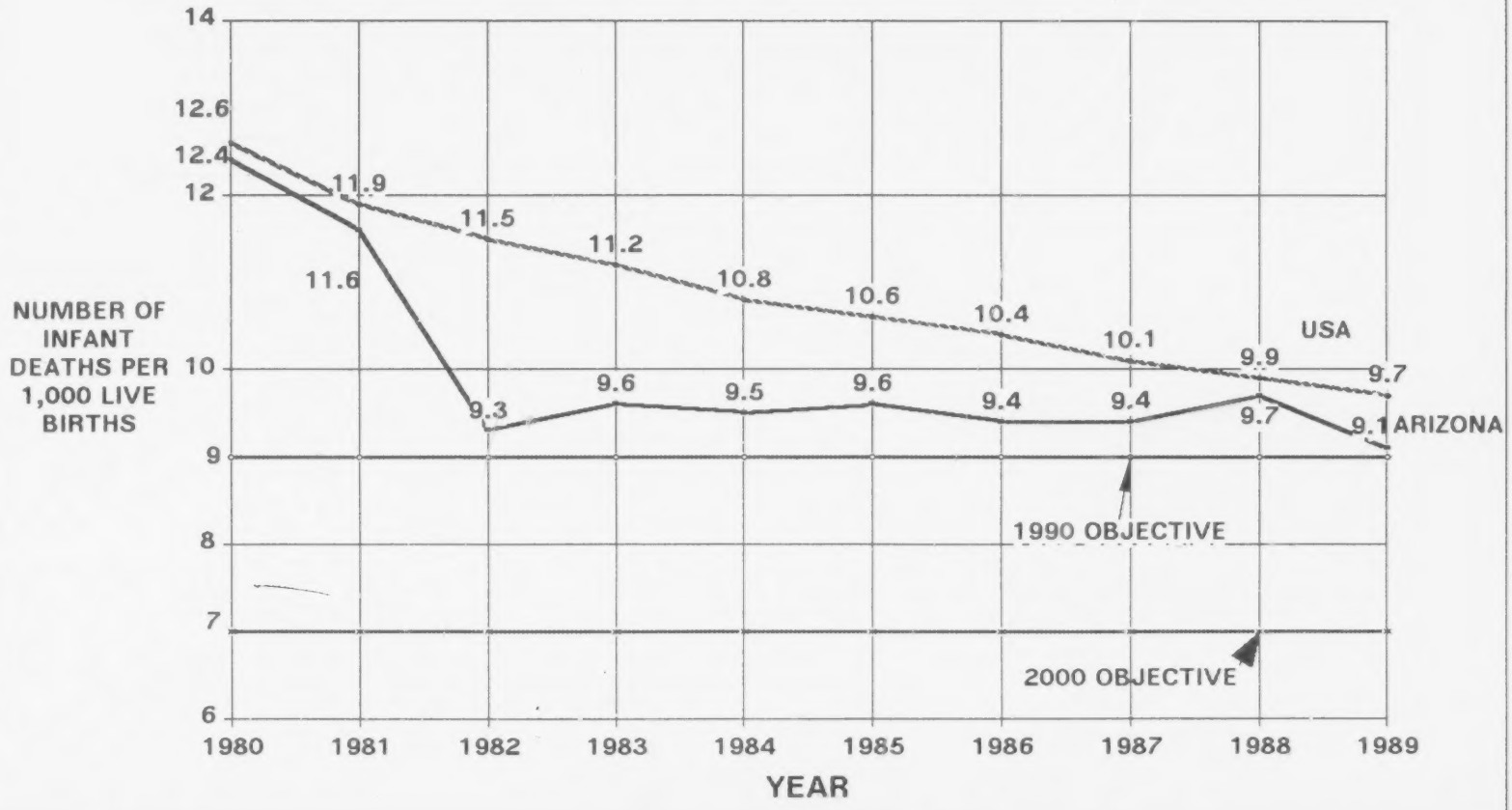


FIGURE 18.
MORTALITY RATES FOR CHILDREN 1 - 14 YEARS OLD, ARIZONA AND UNITED STATES, 1980 - 1989 AND NATIONAL HEALTH OBJECTIVES FOR YEAR 1990 AND YEAR 2000

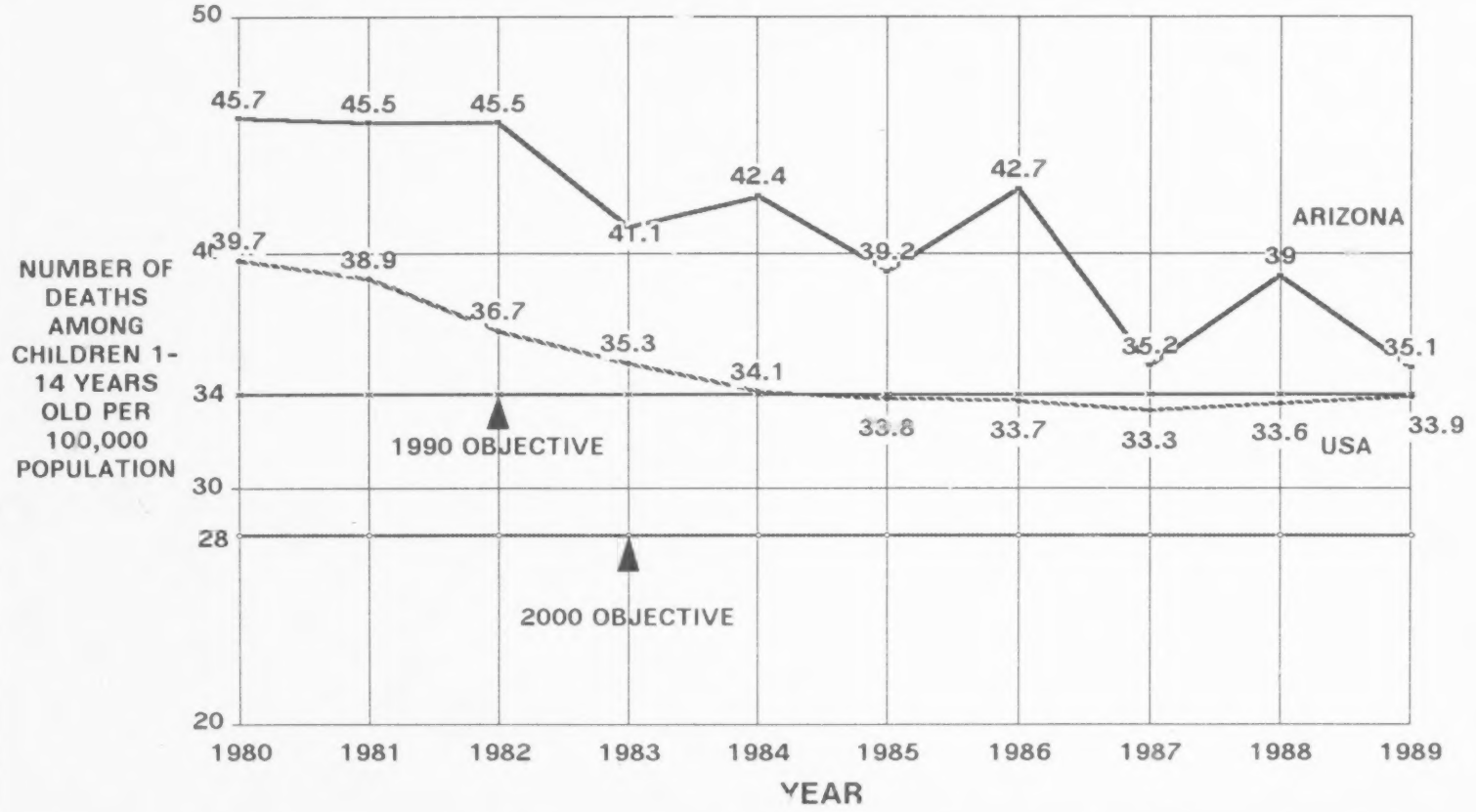


FIGURE 19.
MORTALITY RATES FOR ADOLESCENTS AND YOUNG ADULTS 15 - 24 YEARS OLD, ARIZONA AND UNITED STATES, 1980 - 1989 AND NATIONAL HEALTH OBJECTIVES FOR YEAR 1990 AND YEAR 2000

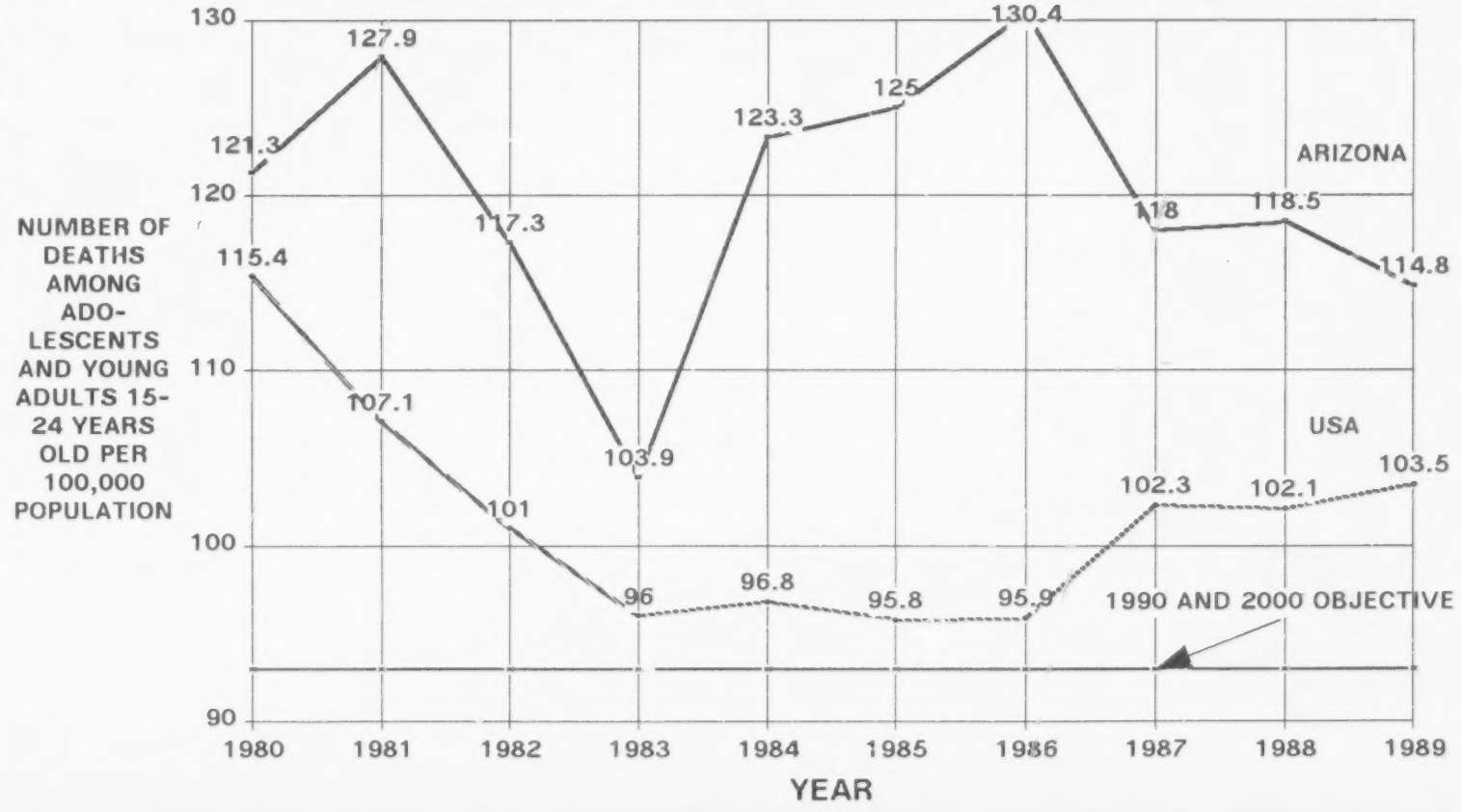
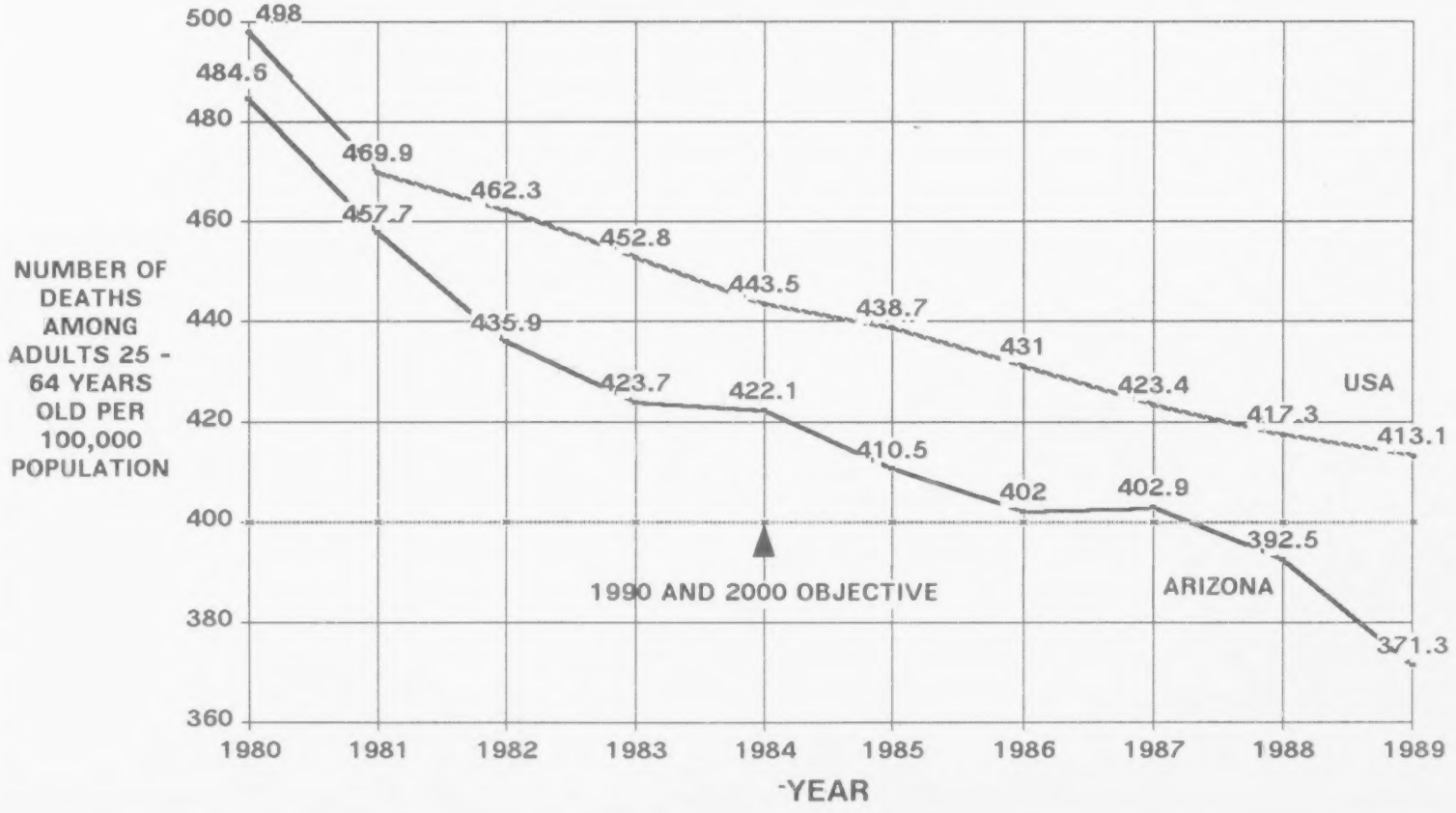


FIGURE 20.
MORTALITY RATES FOR ADULTS 25 - 64 YEARS OLD, ARIZONA AND UNITED STATES, 1980 - 1989 AND NATIONAL HEALTH OBJECTIVES FOR YEAR 1990 AND YEAR 2000



PART II:

VITAL STATISTICS

POPULATION STATISTICS

TABLE 6-1

POPULATION BY COUNTY OF RESIDENCE, ARIZONA, 1980 - 1989

COUNTY	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA[1]	2,718,215	2,816,007	2,895,791	2,975,627	3,080,284	3,197,804	3,351,880	3,468,907	3,594,345	3,723,177
Apache	52,106	52,249	53,412	54,366	55,482	56,357	60,499	62,399	64,388	66,389
Cochise	85,676	88,280	89,690	90,745	93,358	96,293	97,603	100,267	102,422	104,565
Coconino	75,006	76,554	78,498	80,165	83,388	85,973	88,951	91,869	94,810	97,730
Gila	37,068	38,373	39,037	39,230	38,502	38,104	39,700	40,127	40,504	41,025
Graham	22,850	23,494	23,852	23,925	23,237	23,330	24,533	24,694	24,605	25,082
Greenlee	11,404	11,792	11,809	11,042	9,999	8,683	9,576	9,630	9,531	9,471
La Paz[2]	NA	NA	NA	13,628	14,066	14,391	14,100	14,150	14,294	14,456
Maricopa	1,509,246	1,562,550	1,614,584	1,663,748	1,731,141	1,800,033	1,911,612	1,990,840	2,069,353	2,151,980
Mohave	55,854	59,427	61,588	63,996	68,653	72,593	77,371	79,288	81,402	83,559
Navajo	67,617	69,027	69,567	69,842	71,242	72,324	73,973	75,686	77,546	79,444
Pima	531,430	553,478	565,143	582,078	603,330	624,347	642,991	659,112	685,282	711,020
Pinal	90,904	94,141	97,058	98,491	99,751	100,150	103,795	107,169	110,317	113,094
Santa Cruz	20,447	21,120	21,920	22,271	21,730	27,111	27,547	29,183	30,143	30,906
Yavapai	68,131	72,649	75,489	78,398	78,622	88,000	91,697	95,036	97,961	100,984
Yuma	77,985	79,870	80,964	83,703	87,783	90,116	87,932	89,457	91,419	93,311

1 County estimates may not total to Arizona population due to rounding.
2 Included in Yuma County prior to 1983.

Source: Baseline Projections Arizona Department of Economic Security, Population Statistics Unit, 12/12/86 (Data for 1986-1989); Baseline Projections, 10/30/85 (data for 1981-1985); the Bureau of the Census (data for 1980).

TABLE 6-2

POPULATION BY AGE AND GENDER, AND COUNTY OF RESIDENCE, ARIZONA, 1989

COUNTY		All ages	0-4	5-14	15-24	25-34	35-44	45-54	55-64	65+
ARIZONA[1]	T	3,723,177	336,245	575,552	527,675	669,861	521,971	344,674	291,245	455,948
	M	1,837,638	172,002	292,670	263,066	339,331	264,930	171,478	140,160	193,998
	F	1,885,599	164,243	282,882	264,609	330,530	257,041	173,196	151,085	261,950
Apache	T	66,389	10,264	15,844	11,093	9,725	7,083	4,874	3,514	3,987
	M	32,577	5,251	8,076	5,584	4,597	3,353	2,327	1,641	1,744
	F	33,812	5,013	7,768	5,509	5,128	3,730	2,547	1,873	2,243
Cochise	T	104,565	8,404	16,660	16,440	17,349	13,921	10,178	8,881	12,726
	M	51,725	4,300	8,474	8,222	8,801	7,043	4,994	4,253	5,635
	F	52,840	4,104	8,186	8,218	8,548	6,878	5,184	4,628	7,091
Coconino	T	97,730	10,240	17,267	14,624	22,562	14,016	8,020	5,707	5,288
	M	48,630	5,239	8,803	7,201	11,030	7,258	4,004	2,773	2,319
	F	49,100	5,001	8,464	7,423	11,532	6,758	4,016	2,934	2,969
Gila	T	41,025	3,250	6,936	5,747	5,313	5,150	3,874	3,790	6,902
	M	19,776	1,659	3,486	2,800	2,539	2,547	1,832	1,771	3,079
	F	21,249	1,591	3,510	2,947	2,774	2,603	1,982	2,019	3,823
Graham	T	25,082	2,070	4,694	3,794	3,974	3,225	2,323	1,977	3,018
	M	12,605	1,055	2,341	1,818	2,070	1,830	1,169	987	1,332
	F	12,477	1,015	2,353	1,976	1,904	1,395	1,154	990	1,686
Greenlee	T	9,471	750	1,987	1,577	1,309	1,319	850	861	813
	M	4,556	384	995	769	600	667	402	410	326
	F	4,915	366	992	808	709	652	448	452	487
La Paz	T	14,456	1,207	2,951	1,837	2,006	1,659	1,323	1,324	2,645
	M	7,147	617	1,290	926	981	821	645	663	1,253
	F	7,309	590	1,211	911	1,025	839	678	661	1,392
Maricopa	T	2,151,980	196,733	325,203	304,053	393,122	308,909	203,047	164,732	256,176
	M	1,068,043	100,651	166,272	153,365	201,605	157,321	101,824	79,839	107,164
	F	1,083,937	96,082	158,931	150,688	191,517	151,588	101,223	84,893	149,012
Mohave	T	83,599	5,874	11,642	11,280	12,805	9,901	7,632	8,282	16,140
	M	41,236	3,008	5,958	5,647	6,229	4,952	3,802	3,923	7,715
	F	42,323	2,866	5,684	5,633	6,576	4,949	3,830	4,359	8,425
Navajo	T	79,444	9,944	17,452	13,774	11,548	9,428	6,835	4,880	5,578
	M	34,398	5,083	7,910	5,448	4,588	3,889	2,930	2,148	2,400
	F	45,046	4,861	9,542	8,326	6,960	5,539	3,905	2,732	3,178
Pima	T	711,020	56,361	100,620	97,607	138,171	105,377	65,569	57,949	89,362
	M	348,780	28,820	51,376	48,518	69,183	53,868	32,502	27,171	36,890
	F	362,240	27,541	49,244	49,089	68,988	51,509	33,067	30,328	52,472
Pinal	T	113,094	11,019	19,136	16,864	17,582	14,344	9,912	14,760	10,840
	M	57,043	5,639	9,715	8,515	9,111	7,663	5,077	6,685	4,812
	F	56,051	5,380	9,421	8,349	8,471	6,681	4,835	8,075	6,028
Santa Cruz	T	30,906	3,461	5,960	5,080	4,594	3,824	2,745	2,384	2,852
	M	14,952	1,772	3,017	2,577	2,221	1,807	1,301	1,067	1,187
	F	15,954	1,689	2,943	2,503	2,373	2,017	1,444	1,317	1,665
Yavapai	T	100,984	6,723	13,747	11,782	14,845	12,483	9,317	10,016	22,068
	M	49,376	3,440	7,030	5,763	7,615	6,292	4,552	4,737	9,946
	F	51,608	3,283	6,717	6,019	7,230	6,191	4,765	5,279	12,122
Yuma	T	93,311	9,929	15,863	12,066	14,940	11,302	8,144	7,443	13,619
	M	46,711	5,075	7,962	5,883	8,154	5,604	4,042	3,672	6,316
	F	46,600	4,854	7,901	6,183	6,786	5,698	4,102	3,771	7,303

[1] County estimates may not total to Arizona population due to rounding.

Source: Baseline Projections, Arizona Department of Economic Security, Population Statistics Unit, 12/12/86.

TABLE 6-3

POPULATION BY AGE AND GENDER IN URBAN AND RURAL AREAS,[1] ARIZONA, 1980 AND 1989

Area and Gender	Under 1	1-14	15-19	20-44	45-64	65-74	75+	TOTAL
URBAN, total								
1980	35,665	425,203	185,908	775,355	381,915	153,452	83,278	2,040,676
1989	49,835	629,082	191,760	1,155,479	491,297	210,910	134,628	2,863,000
MALE								
1980	18,259	217,720	94,528	388,302	179,506	68,496	33,352	1,000,162
1989	25,516	321,603	96,311	587,549	241,336	89,574	54,480	1,416,823
FEMALE								
1980	17,406	207,483	91,380	387,053	202,409	84,956	49,926	1,040,514
1989	24,319	307,479	95,449	567,930	249,511	121,336	80,148	1,446,177
RURAL, total								
1980	11,880	171,775	66,109	230,231	126,812	48,668	21,964	677,539
1989	16,754	216,126	65,217	307,051	144,622	76,835	33,575	860,177
MALE								
1980	6,081	86,248	33,755	116,348	61,164	24,380	9,803	337,780
1989	8,547	109,006	32,081	151,386	70,302	34,756	15,188	420,815
FEMALE								
1980	5,799	85,527	32,354	113,883	65,648	24,288	12,161	339,759
1989	8,207	107,120	33,136	155,665	74,770	42,079	18,387	439,362
STATEWIDE TOTAL								
1980	47,545	596,978	252,017	1,005,586	508,727	202,120	105,242	2,718,215
1989	66,589	845,208	256,977	1,462,530	635,919	287,745	168,203	3,723,177
MALE								
1980	24,340	303,968	128,283	504,650	240,675	92,876	43,155	1,337,942
1989	34,063	430,609	128,283	504,650	240,675	92,876	43,155	1,337,942
FEMALE								
1980	23,205	293,010	123,734	500,936	268,057	109,244	62,087	1,380,273
1989	32,526	414,599	128,585	723,595	324,281	158,415	103,535	1,885,539

[1] Maricopa and Pima counties comprise Arizona's urban areas while the remining 13 counties represent rural areas.

Source: Baseline Projections, Arizona Department of Economic Security, Population Statistics Unit, 12/12/86 (data for 1989); Baseline Projections, 6/6/89 (projected population of persons 65-74 and 75+ years old); the Bureau of the Census (data for 1980).

BIRTH STATISTICS*

* The word "birth" in Tables 7-2 through 7-46 means live births.

TABLE 7-1

RATES OF NATURAL INCREASE FROM BIRTHS PER 1,000 POPULATION, BY COUNTY OF RESIDENCE, ARIZONA AND UNITED STATES, 1980-1989

AREA	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent change from 1980
Apache	25.4	26.2	27.4	26.2	29.0	27.1	23.5	24.2	24.3	21.6	-15.0
Cochise	10.8	11.4	10.1	9.4	10.4	9.1	8.8	8.4	8.7	9.3	-13.9
Coconino	20.2	17.8	17.1	18.3	17.9	18.2	16.2	17.5	16.4	16.9	-16.3
Gila	10.1	11.3	10.3	7.6	7.2	6.8	5.7	4.0	6.1	5.5	-45.5
Graham	14.9	14.0	12.7	10.4	11.3	10.2	8.4	10.2	8.8	9.3	-37.6
Greenlee	16.3	20.4	13.9	10.3	11.3	13.1	5.8	5.9	4.9	5.8	-64.4
La Paz[1]	NA	NA	NA	6.5	3.0	6.9	6.2	3.3	4.0	5.0	NA
Maricopa	10.0	10.2	10.2	10.0	10.0	11.2	11.1	11.0	11.0	11.0	+10.0
Mohave	5.8	5.9	4.8	5.6	5.9	2.9	3.5	3.7	3.1	4.3	-25.9
Navajo	22.0	20.2	21.0	20.9	20.3	19.8	19.1	20.1	19.1	18.7	-15.0
Pima	8.7	8.9	8.6	8.8	8.1	8.7	8.3	7.6	8.6	8.3	-4.6
Pinal	12.2	12.3	12.7	11.2	10.5	12.7	10.7	11.2	9.8	9.1	-25.4
Santa Cruz	18.5	18.6	16.2	14.4	16.1	13.8	13.0	13.3	15.7	17.0	-8.1
Yavapai	2.0	2.6	2.6	0.9	0.4	0.4	1.1	- 0.5	0.7	-0.1	-105.0
Yuma	12.1	13.8	12.2	13.0	13.5	13.8	14.8	14.4	14.7	17.4	+43.8
ARIZONA	10.6	10.8	10.6	10.3	10.1	10.9	10.6	10.6	10.5	10.5	-0.9
U.S.[2]	7.0	7.3	7.5	6.9	6.9	7.1	6.8	7.0	7.1	7.5	+7.1

1 Included in Yuma County prior to 1983.

2 U.S. data from the National Center for Health Statistics. Rates for 1983-1985 are final. Rates for 1986-1989 are provisional.

TABLE 7-2

BIRTHS BY COUNTY OF RESIDENCE
ARIZONA, 1980-89

County	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA	50,049	51,620	52,628	52,919	55,109	59,344	60,822	63,320	65,544	67,128
Apache	1,627	1,681	1,845	1,787	1,817	1,853	1,757	1,852	1,892	1,781
Cochise	1,570	1,646	1,555	1,565	1,618	1,559	1,524	1,606	1,638	1,730
Coconino	1,824	1,733	1,768	1,808	1,813	1,946	1,828	2,006	1,966	2,040
Gila	705	760	810	683	672	642	625	569	659	651
Graham	512	509	468	435	446	406	395	445	418	448
Greenlee	272	299	256	185	195	161	106	124	111	104
La Paz[1]	NA	NA	NA	236	195	234	215	198	214	217
Maricopa	26,769	27,800	28,598	28,758	30,711	33,780	35,334	36,624	38,108	39,179
Mohave	871	886	886	926	988	968	1,065	1,177	1,225	1,353
Navajo	1,899	1,816	1,883	1,911	1,864	1,895	1,896	1,981	1,957	1,993
Pima	8,931	9,130	9,155	9,585	9,678	10,278	10,423	10,924	11,217	11,257
Pinal	1,840	1,899	1,945	1,869	1,849	2,049	2,053	2,126	2,094	2,097
Santa Cruz	499	519	491	457	512	523	504	547	665	700
Yavapai	937	998	1,067	1,032	999	1,088	1,129	1,171	1,285	1,244
Yuma	1,793	1,944	1,901	1,682	1,752	1,962	1,968	1,970	2,095	2,334

[1] Included in Yuma County until January 1, 1983.

TABLE 7-3

BIRTHS BY COUNTY OF OCCURRENCE,[1] ARIZONA, 1980-89

County	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA	50,068	51,604	52,368	52,544	54,889	59,305	60,775	63,347	65,657	67,330
Apache	1,237	1,228	1,318	1,259	1,419	1,663	1,641	1,776	1,854	1,763
Cochise	1,511	1,618	1,500	1,453	1,513	1,474	1,420	1,484	1,560	1,627
Coconino	2,263	2,114	2,239	2,207	2,188	2,264	2,163	2,349	2,238	2,332
Gila	576	613	668	560	570	538	510	438	449	499
Graham	397	407	376	360	374	412	400	474	434	467
Greenlee	309	306	256	173	178	89	8	5	6	3
La Paz[2]	NA	NA	NA	3	4	2	5	1	3	6
Maricopa	28,076	29,194	30,038	30,314	32,191	35,410	36,902	38,457	39,959	41,021
Mohave	861	876	834	858	909	975	1,029	1,084	1,147	1,308
Navajo	1,183	1,107	1,158	1,243	1,210	1,155	1,080	1,136	1,158	1,204
Pima	9,906	10,208	10,111	10,307	10,415	11,036	11,161	11,745	12,106	12,096
Pinal	920	905	902	850	873	973	1,025	879	842	870
Santa Cruz	310	316	253	282	344	326	361	437	559	614
Yavapai	846	926	1,002	952	925	1,009	1,051	1,079	1,180	1,130
Yuma	1,673	1,786	1,713	1,723	1,776	1,979	2,019	2,003	2,162	2,390

1 Resident (66,255) and non-resident (1,075) births occurring in Arizona.

2 Included in Yuma County Prior to 1983.

TABLE 7-4

RESIDENT BIRTHS BY MONTH OF OCCURRENCE
ARIZONA, 1980-89

	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
1980	4,006	3,748	4,069	3,822	4,059	3,982	4,497	4,369	4,707	4,414	4,060	4,336	50,049
Percent	8.0	7.5	8.1	7.6	8.1	8.0	9.0	8.7	9.4	8.8	8.1	8.7	100.0
1981	4,139	3,868	4,311	3,934	3,990	4,325	4,533	4,662	4,537	4,647	4,264	4,410	51,620
Percent	8.0	7.5	8.4	7.6	7.7	8.4	8.8	9.0	8.8	9.0	8.3	8.5	100.0
1982	4,252	3,925	4,355	4,160	4,107	4,280	4,608	4,691	4,798	4,634	4,300	4,518	52,628
Percent	8.1	7.5	8.3	7.9	7.8	8.8	8.8	8.9	9.1	8.8	8.2	8.6	100.0
1983	4,420	4,016	4,532	4,291	4,181	4,195	4,545	4,866	4,721	4,529	4,230	4,393	52,919
Percent	8.4	7.6	8.6	8.1	7.9	7.9	8.6	9.2	8.9	8.6	8.0	8.3	100.0
1984	4,397	4,209	4,456	4,244	4,331	4,368	4,954	4,979	5,013	4,842	4,693	4,623	55,109
Percent	8.0	7.6	8.1	7.7	7.9	7.9	9.0	9.0	9.1	8.8	8.6	8.3	100.0
1985	4,841	4,435	4,814	4,460	4,820	4,693	5,231	5,476	5,228	5,196	4,994	5,156	59,344
Percent	8.2	7.5	8.1	7.5	8.1	7.9	8.8	9.2	8.8	8.8	8.4	8.7	100.0
1986	4,915	4,572	4,947	4,696	4,799	4,935	5,452	5,489	5,552	5,367	4,800	5,298	60,822
Percent	8.1	7.5	8.1	7.7	7.9	8.1	9.0	9.0	9.1	8.8	7.9	8.7	100.0
1987	5,108	4,831	5,243	5,034	5,006	5,136	5,647	5,599	5,562	5,442	5,179	5,533	63,320
Percent	8.1	7.6	8.3	8.0	7.9	8.1	8.9	8.8	8.8	8.6	8.2	8.7	100.0
1988	5,303	5,130	5,342	5,105	5,247	5,501	5,633	5,980	5,816	5,584	5,311	5,592	65,544
Percent	8.1	7.8	8.2	7.8	8.0	8.4	8.6	9.1	8.9	8.5	8.1	8.5	100.0
1989	5,330	5,049	5,549	5,217	5,435	5,568	5,772	6,096	6,089	5,711	5,594	5,718	67,128
Percent	7.9	7.5	8.3	7.8	8.1	8.3	8.6	9.1	9.1	8.5	8.3	8.5	100.0

TABLE 7-5

BIRTHS BY MONTH AND DAY OF OCCURRENCE, ARIZONA RESIDENTS, 1989

Day of Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
01	151	176	182	169	178	223	159	214	211	157	224	207
02	134	170	203	132	213	203	130	212	178	184	203	170
03	186	200	198	162	169	140	183	208	154	227	215	146
04	189	151	173	193	190	149	176	208	197	232	162	177
05	175	157	155	191	210	187	214	152	216	192	154	210
06	164	154	176	186	141	218	198	167	238	185	175	195
07	159	206	193	197	146	207	223	212	248	172	252	192
08	150	193	181	159	196	200	166	232	218	154	202	196
09	184	194	188	144	198	182	161	209	171	195	214	146
10	204	190	189	195	184	176	209	227	155	225	200	174
11	180	164	160	185	206	143	221	215	210	210	160	189
12	185	159	159	180	175	192	224	162	229	209	154	188
13	189	202	182	184	133	219	163	162	224	170	179	199
14	141	204	171	183	141	175	237	212	220	156	209	203
15	145	210	202	166	173	193	176	209	239	140	190	200
16	199	179	242	146	180	198	163	209	179	196	189	167
17	188	218	232	198	176	169	193	219	171	209	204	160
18	177	174	156	196	224	144	219	243	227	189	133	167
19	213	155	148	184	206	194	200	187	188	205	155	232
20	204	187	182	160	135	183	206	157	227	193	203	240
21	128	206	194	191	163	183	174	219	241	143	233	224
22	154	217	202	162	191	219	175	200	243	152	190	225
23	194	198	177	142	198	193	116	232	181	202	156	149
24	198	182	173	195	197	168	205	181	165	226	173	146
25	196	160	130	201	194	163	211	192	178	194	176	151
26	166	127	135	190	176	202	241	173	240	202	139	154
28	147	210	189	187	135	211	204	205	236	172	211	211
29	149		195	140	162	181	182	222	219	151	219	262
30	185		197	167	180	220	156	207	159	192	199	165
31	217		192		218		199	195		180		168
TOTAL	5,430	5,128	5,648	5,287	5,525	5,650	5,880	6,202	6,176	5,787	5,671	5,819

TABLE 7-6

RESIDENT BIRTHS BY PLACE OF OCCURRENCE AND NON-RESIDENT BIRTHS OCCURRING IN ARIZONA BY COUNTY OF OCCURRENCE, ARIZONA, 1989

PLACE OF RESIDENCE:	PLACE OF BIRTH																	
	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma	ARIZONA TOTAL[1]	OTHER STATE[2]	ARIZONA RESIDENTS, TOTAL[3]
Apache	1,322	0	35	1	0	0	0	63	0	76	1	0	0	0	0	1,498	283	1,781
Cochise	0	1,507	0	0	23	0	0	6	0	0	187	0	1	0	1	1,725	5	1,730
Coconino	11	0	1,813	1	0	0	0	79	9	60	1	0	0	11	0	1,985	55	2,040
Gila	0	0	0	443	0	0	0	176	0	7	19	1	0	3	0	649	2	651
Graham	0	0	0	24	349	0	0	44	0	2	28	0	0	0	0	447	1	448
Greenlee	1	1	1	0	85	3	0	3	0	0	10	0	0	0	0	104	0	104
La Paz	0	0	1	0	0	0	5	35	101	0	0	0	0	0	3	145	72	217
Maricopa	9	3	18	6	5	0	0	38,978	4	13	24	9	2	12	3	39,086	93	39,179
Mohave	1	0	4	0	0	0	0	34	1,092	1	2	0	0	0	1	1,135	218	1,353
Navajo	249	0	386	8	0	0	0	209	0	1,040	3	0	0	0	0	1,895	98	1,993
Pima	1	4	0	0	1	0	0	43	0	0	11,186	1	1	0	0	11,237	20	11,257
Pinal	0	1	2	11	0	0	0	992	0	1	231	854	0	2	0	2,094	3	2,097
Santa Cruz	0	7	0	0	0	0	0	2	0	0	196	0	493	0	0	698	2	700
Yavapai	0	0	30	1	0	0	0	106	3	0	0	0	1	1,098	0	1,239	5	1,244
Yuma	0	0	0	0	1	0	0	74	1	0	4	0	0	1	2,237	2,318	16	2,334
ARIZONA RESIDENTS, TOTAL[4]	1,594	1,532	2,290	495	464	3	5	40,844	1,210	1,200	11,892	865	498	1,127	2,245	66,255	873	67,128
RESIDENTS OF OTHER STATES[5]	169	104	42	4	3	0	1	177	98	4	204	5	116	3	145	1,075		
TOTAL BORN[6]	1,763	1,627	2,332	499	467	3	6	41,021	1,308	1,204	12,096	870	614	1,130	2,390	67,330		

1 Number of live births to residents of specified county occurring in the state.
2 Number of live births to residents of specified county occurring out-of-state.
3 Total number of live births to residents of specified county.
4 Number of live births occurring in specified county to residents of the state.
5 Number of live births occurring in specified county to out-of-state residents.
6 Total number of live births occurring in specified county to Arizona Residents and non-residents.

TABLE 7-7

BIRTHS BY MOTHER'S AGE GROUP AND COUNTY OF RESIDENCE
ARIZONA, 1989

County of Residence	All Ages	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45+	Not Stated
ARIZONA	67,128	159	3,193	6,023	19,501	20,450	12,760	4,266	689	27	60
Apache	1,781	4	98	179	517	458	320	142	30	2	31
Cochise	1,730	4	93	163	540	533	283	102	12	0	0
Coconino	2,040	4	92	207	594	584	375	147	32	2	3
Gila	651	0	42	86	216	179	81	41	5	1	0
Graham	448	2	22	55	160	114	60	30	5	0	0
Greenlee	104	1	9	9	33	34	14	4	0	0	0
La Paz	217	1	11	23	80	58	30	10	4	0	0
Maricopa	39,179	97	1,807	3,362	11,062	12,445	7,619	2,380	379	16	12
Mohave	1,353	1	63	124	457	371	228	87	15	0	7
Navajo	1,993	4	112	172	621	554	354	144	28	1	3
Pima	11,257	21	492	958	3,190	3,343	2,338	795	116	3	1
Pinal	2,097	14	163	262	699	542	296	102	19	0	0
Santa Cruz	700	1	35	56	199	197	154	50	7	1	0
Yavapai	1,244	1	55	113	359	344	239	119	14	0	0
Yuma	2,334	4	99	254	774	694	369	113	23	1	3

TABLE 7-8

RESIDENT BIRTHS BY MOTHER'S AND AGE GROUP AND ETHNICITY, ARIZONA, 1980, 1985 AND 1989

Year	Ethnic Group	Total	-15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Not Stated
1980	Total, all groups:[1]	50,049	138	8,173	17,897	14,487	6,951	2,002	378	19	4
	WHITE[2]	31,597	45	4,161	11,320	9,900	4,774	1,210	178	7	2
	HISPANIC[3]	11,495	45	2,512	4,143	2,904	1,331	446	106	8	0
	BLACK	1,634	21	424	632	376	135	35	11	0	0
	NATIVE AMERICAN	4,796	26	1,057	1,660	1,121	577	277	80	4	0
	OTHER	527	1	25	142	186	134	34	3	0	2
1985	Total, all groups:	59,344	110	7,916	19,721	17,979	9,990	3,126	483	15	4
	WHITE	59,344	110	7,916	19,721	17,979	9,990	3,126	483	15	4
	HISPANIC	37,972	28	3,996	12,217	12,415	6,983	2,045	281	5	2
	BLACK	13,062	39	2,490	4,657	3,419	1,760	579	110	7	1
	NATIVE AMERICAN	5,478	25	980	1,916	1,321	805	349	78	3	1
	OTHER	863	3	33	178	336	239	67	7	0	0
1989	Total, all groups:	67,128	159	9,216	19,501	20,450	12,760	4,266	689	27	60
	WHITE	39,484	36	4,068	10,539	13,053	8,534	2,815	422	10	7
	HISPANIC	17,663	81	3,378	5,941	4,693	2,551	845	154	12	8
	BLACK	2,528	14	579	836	635	355	95	12	1	1
	NATIVE AMERICAN	6,338	28	1,109	1,979	1,703	1,000	393	86	4	36
	OTHER	1,16	0	82	206	365	320	118	15	0	0

1 Totals for all ethnic groups include records with unknown ethnicity.
2 Non-Hispanic.
3 White of Hispanic origin.

TABLE 7-9

LIVE BIRTHS BY MOTHER'S ETHNIC GROUP AND CHILD'S ETHNIC GROUP BY YEAR, ARIZONA, 1980 - 1989

	MOTHER'S ETHNIC GROUP:						CHILD'S ETHNIC GROUP				
YEAR	TOTAL	WHITE[1]	HISPANIC[2]	BLACK	NATIVE AMERICAN	OTHER	WHITE[3]	HISPANIC[4]	BLACK	NATIVE AMERICAN	OTHER
1980	50,049	31,597	11,495	1,634	4,796	527	29,226	13,082	2,062	5,061	618
1981	51,620	32,495	11,896	1,759	4,878	592	29,990	13,651	2,201	5,097	681
1982	52,628	33,419	11,630	1,800	5,137	642	30,695	13,514	2,291	5,366	762
1983	52,919	33,664	11,477	1,820	5,297	661	31,004	13,279	2,340	5,510	786
1984	55,109	35,183	12,067	1,911	5,265	683	32,464	13,784	2,457	5,598	806
1985	59,344	37,972	13,062	1,969	5,478	863	34,879	14,998	2,525	5,903	1,039
1986	60,822	38,044	14,044	2,157	5,718	859	35,379	16,232	2,730	5,652	829
1987	63,320	39,616	14,402	2,289	6,036	977	36,960	16,646	2,887	5,973	954
1988	65,544	39,821	15,952	2,406	6,240	1,125	36,903	18,306	3,075	6,163	1,097
1989	67,128	39,484	17,663	2,528	6,338	1,115	36,767	19,900	3,085	6,296	1,080

1 White non-Hispanic mother.
2 White mother of Hispanic origin.
3 White non-Hispanic child.
4 Either one or both parents are of Hispanic origin.

TABLE 7-10

RESIDENT LIVE BIRTHS BY MOTHER'S ETHNICITY AND AGE GROUP, ARIZONA, 1989

Age	All Ethnic Groups	White[1]	Non-White[2]	Hispanic All Races	Non Hispanic All Races	WHITE			BLACK			NATIVE AMERICAN			OTHER		
						All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic
< 15	159	117	42	85	74	117	81	36	14	0	14	28	4	24	0	0	0
15-17	3,193	2,509	684	1,336	1,857	2,509	1,294	1,215	230	10	220	431	31	400	23	1	22
18-19	6,023	4,937	1,086	2,140	3,883	4,937	2,084	2,853	349	13	336	678	38	640	59	5	54
20-24	19,501	16,480	3,021	6,039	13,462	16,480	5,941	10,539	836	13	823	1,979	77	1,902	206	8	198
25-29	20,450	17,746	2,704	4,780	15,670	17,746	4,693	13,053	635	11	624	1,703	59	1,644	365	17	348
30-34	12,760	11,085	1,675	2,600	10,160	11,085	2,551	8,534	355	9	346	1,000	31	969	320	9	311
35-39	4,266	3,660	606	857	3,409	3,660	845	2,815	95	1	94	393	9	384	118	2	116
40+	716	599	117	169	548	599	167	432	13	0	13	90	2	88	15	0	15
TOTAL[3]	67,128	57,147	9,981	18,013	49,115	57,147	17,663	39,484	2,528	57	2,471	6,338	251	6,087	1,106	42	1,064

1 Includes Whites of Hispanic origin
2 Includes Non-Whites of Hispanic origin
3 Includes records with unknown or unspecified age group.

TABLE 7-11

BIRTHS BY MOTHER'S COUNTY OF RESIDENCE AND EDUCATION
ARIZONA, 1989

County of Residence	Total	YEARS OF EDUCATION None	1-8	9-12	13-16	17+	Not Stated
ARIZONA	67,128	326	5,316	37,688	18,611	2,489	2,698
Apache	4,781	10	109	1,185	352	23	102
Cochise	1,730	3	116	883	462	39	227
Coconino	2,040	14	103	1,243	581	63	36
Gila	651	0	37	478	111	9	16
Graham	448	1	29	277	127	8	6
Greenlee	104	0	6	73	20	0	5
La Paz	217	1	22	140	26	3	25
Maricopa	39,179	213	3,179	20,824	11,882	1,510	1,571
Mohave	1,353	2	56	963	238	30	64
Navajo	1,993	7	105	1,372	378	32	99
Pima	11,257	64	783	6,227	3,128	636	419
Pinal	2,097	5	222	1,414	362	23	71
Santa Cruz	700	1	93	462	110	26	8
Yavapai	1,244	1	54	773	359	38	19
Yuma	2,334	4	402	1,374	475	49	30

TABLE 7-12

BIRTHS BY CHILD'S GENDER AND ETHNIC GROUP AND MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

County of Residence	TOTAL BIRTHS[1]			WHITE[2]			HISPANIC[3]			NATIVE AMERICAN			BLACK			OTHER RACE		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
ARIZONA	67,128	34,488	32,640	36,767	18,936	17,831	19,900	10,247	9,653	6,296	3,147	3,149	3,085	1,570	1,515	1,071	584	487
Apache	1,781	884	8	197	97	100	70	37	30	1,508	746	762	6	4	2	0	0	0
Cochise	1,730	876	854	763	395	368	718	350	368	11	7	4	143	70	73	95	54	41
Coconino	2,040	1,057	983	778	393	385	222	125	97	987	510	477	40	23	17	12	5	7
Gila	651	330	321	275	142	133	152	77	75	217	108	109	4	2	2	3	1	2
Graham	448	225	223	203	111	92	160	69	91	73	39	34	9	5	4	3	1	2
Greenlee	104	57	47	43	26	17	57	27	30	3	3	0	1	1	0	0	0	0
La Paz	217	119	98	76	39	37	87	56	31	49	20	29	4	3	1	1	1	0
Maricopa	39,179	20,105	19,074	24,467	12,553	11,914	10,697	5,520	5,177	1,188	576	612	2,141	1,093	1,048	685	363	322
Mohave	1,353	713	640	1,147	613	534	126	61	65	54	23	31	9	5	3	11	7	4
Navajo	1,993	1,031	962	517	266	251	124	74	50	1,327	676	651	18	9	9	7	6	1
Pima	11,257	5,814	5,443	5,535	2,865	2,670	4,494	2,310	2,184	499	258	241	519	259	260	209	122	87
Pinal	2,097	1,077	1,020	893	472	421	808	416	392	299	144	155	91	43	48	6	2	4
Santa Cruz	700	351	349	50	32	18	643	314	329	0	0	0	3	2	1	4	3	1
Yavapai	1,244	626	618	1,028	528	500	166	75	91	41	19	22	6	3	3	3	1	2
Yuma	2,334	1,223	1,111	795	404	391	1,376	736	640	40	18	22	91	47	44	32	18	14

1 Includes records with unknown or unspecified ethnic group.
2 Non-Hispanic child.
3 Either one or both parents are of Hispanic origin.

NOTE: The race of the child is derived from the parents' race. If father is white or not classifiable, the child assumes mother's race; else, the child assumes father's race.

TABLE 7-13

BIRTHS BY MOTHER'S ETHNIC GROUP, COUNTY OF RESIDENCE AND CHILD'S GENDER, ARIZONA, 1989

County of Residence	TOTAL BIRTHS[1]			WHITE[2]			HISPANIC[3]			NATIVE AMERICAN			BLACK			OTHER RACE		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
ARIZONA	67,128	34,488	32,640	39,484	20,304	19,180	17,663	9,143	8,520	6,338	3,165	3,173	2,528	1,272	1,256	1,106	603	503
Apache	1,781	884	897	215	106	109	53	83	24	1,510	746	764	3	3	0	0	0	0
Cochise	1,730	876	854	886	468	418	630	294	336	11	7	4	98	50	48	105	57	48
Coconino	2,040	1,057	983	831	419	412	180	104	76	988	511	477	28	17	11	12	5	7
Gila	651	330	321	308	159	149	120	60	60	217	108	109	3	2	1	3	1	2
Graham	448	225	223	237	119	118	130	63	67	74	39	35	4	3	1	3	2	1
Greenlee	104	57	47	56	29	27	44	24	20	3	3	0	1	1	0	0	0	0
La Paz	217	119	98	87	46	41	76	50	26	49	20	29	3	2	1	2	1	1
Maricopa	39,179	20,105	19,074	25,897	13,290	12,607	9,541	4,932	4,609	1,212	589	623	1,824	921	903	704	373	331
Mohave	1,353	713	640	1,190	628	562	87	49	38	54	23	31	5	3	2	11	7	4
Navajo	1,993	1,031	962	557	288	269	87	55	32	1,330	677	653	12	5	7	7	6	1
Pima	11,257	5,814	5,443	6,191	3,184	3,007	3,952	2,051	1,901	506	260	246	394	194	200	213	125	88
Pinal	2,097	1,077	1,020	989	522	467	718	372	346	302	145	157	82	36	46	6	4	2
Santa Cruz	700	351	349	71	41	30	624	306	318	0	0	0	1	1	0	4	3	1
Yavapai	1,244	626	618	1,085	552	533	112	52	60	41	19	22	3	2	1	3	1	2
Yuma	2,334	1,223	1,111	884	453	431	1,309	702	607	41	18	23	67	32	35	33	18	15

1 Includes records with unknown or unspecified ethnic group.
2 Non-Hispanic mother.
3 Mother is white of Hispanic origin.

TABLE 7-14

LOW-BIRTHWEIGHT BIRTHS BY MOTHER'S ETHNICITY
AND COUNTY OF RESIDENCE, ARIZONA, 1989

County of Residence	Total LBW Births	White[1]	Hispanic[2]	Black	Native American	Other
ARIZONA	4,279	2,426	1,049	357	363	84
Apache	112	21	1	0	90	0
Cochise	123	65	39	10	1	8
Coconino	129	67	17	4	37	4
Gila	39	17	13	0	9	0
Graham	28	13	9	1	4	1
Greenlee	9	4	5	0	0	0
La Paz	17	8	8	0	1	0
Maricopa	2,455	1,512	558	272	61	52
Mohave	105	93	6	1	4	1
Navajo	160	42	6	0	110	2
Pima	713	368	246	57	30	12
Pinal	126	66	41	6	13	0
Santa Cruz	40	6	33	0	0	1
Yavapai	108	97	8	1	2	0
Yuma	115	47	59	5	1	3

1 Non-Hispanic mother.
2 White mother of Hispanic origin.

TABLE 7-15

LOW-BIRTHWEIGHT BIRTHS BY COUNTY OF RESIDENCE
ARIZONA, 1970-1989

County of Residence	1970	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA	2,773	2,563	3,089	3,103	3,076	3,204	3,377	3,712	3,785	4,107	4,110	4,279
Apache	102	93	98	109	117	111	109	137	129	120	115	112
Cochise	113	131	114	122	111	141	125	104	87	109	98	123
Coconino	125	102	112	112	96	120	113	132	113	115	119	129
Gila	37	46	38	34	54	31	41	36	50	32	50	39
Graham	38	29	28	43	22	20	13	29	29	15	26	28
Greenlee	17	17	14	15	11	10	10	7	4	7	4	9
La Paz	NA	NA	NA	NA	NA	25	10	16	18	10	11	17
Maricopa	1,446	1,293	1,628	1,664	1,655	1,695	1,927	2,095	2,232	2,412	2,381	2,455
Mohave	26	40	58	47	72	52	66	52	73	81	88	105
Navajo	121	123	118	121	95	102	107	109	111	135	116	160
Pima	487	433	559	549	511	592	562	650	607	695	681	713
Pinal	109	116	124	120	141	114	103	137	138	145	136	126
Santa Cruz	19	18	33	21	32	24	16	46	35	36	58	40
Yavapai	31	33	57	50	66	73	72	69	62	79	95	108
Yuma	102	89	108	96	93	94	103	93	97	116	132	115

TABLE 7-16

LOW-BIRTHWEIGHT BIRTHS BY MOTHER'S AGE GROUP AND COUNTY OF RESIDENCE
ARIZONA, 1989

County of Residence	Total Births[1] All Weights	Total Low-Birthweight Births	Under 15	15-19	20-24	25-29	30-34	35-39	40+
ARIZONA	67,128	4,279	12	714	1,205	1,168	797	320	61
Apache	1,781	112	0	23	28	25	24	8	3
Cochise	1,730	123	0	23	34	29	23	14	0
Coconino	2,040	129	0	25	29	33	24	15	3
Gila	651	39	0	5	12	17	1	4	0
Graham	448	28	0	12	6	5	3	2	0
Greenlee	104	9	0	2	3	2	1	1	0
La Paz	217	17	0	1	10	4	1	0	1
Maricopa	39,179	2,455	9	397	691	687	459	174	37
Mohave	1,353	105	0	17	31	28	19	9	1
Navajo	1,963	105	0	17	31	28	19	9	1
Pima	11,257	713	2	106	211	194	138	55	7
Pinal	2,097	126	1	22	37	33	24	8	1
Santa Cruz	700	40	0	6	8	11	9	3	3
Yavapai	1,244	108	0	12	37	30	18	10	1
Yuma	2,334	115	0	19	28	36	17	10	2

[1] Includes records with unknown or unspecified age group.

TABLE 7-17

LOW-BIRTHWEIGHT BIRTHS BY MOTHER'S ETHNICITY AND AGE GROUP, ARIZONA, 1989

Age	All Ethnic Groups	White[1]	Non-White[2]	Hispanic All Races	Non Hispanic All Races	WHITE			BLACK			NATIVE AMERICAN			OTHER		
						All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic
< 15	12	8	4	8	4	8	7	1	2	0	2	2	1	1	0	0	0
15-17	266	202	64	98	168	202	97	105	25	1	24	37	0	37	2	0	2
18-19	448	349	99	150	298	349	145	204	46	1	45	42	2	40	11	2	9
20-24	1,205	963	242	334	871	963	326	637	125	1	124	99	5	94	18	2	16
25-29	1,168	973	195	258	910	973	256	717	95	1	94	76	0	76	24	1	23
30-34	797	648	149	133	664	648	131	517	53	0	53	74	1	73	22	1	21
35-39	320	278	42	68	252	278	68	210	11	0	11	24	0	24	7	0	7
40+	61	53	8	18	43	53	18	35	0	0	0	8	0	8	0	0	0
TOTAL[3]	4,279	3,475	804	1,068	3,211	3,475	1,049	2,426	357	4	353	363	9	354	84	6	78

1 Includes Whites of Hispanic origin.

2 Includes Non-Whites of Hispanic origin.

3 Includes records with unknown or unspecified ethnicity.

TABLE 7-18

BIRTH RATIOS[1] OF LOW-BIRTHWEIGHT BABIES BY MOTHER'S ETHNICITY AND AGE GROUP, ARIZONA, 1989

Age	All Ethnic Groups	White[2]	Non-White[3]	Hispanic All Races	Non Hispanic All Races	WHITE			BLACK			NATIVE AMERICAN			OTHER		
						All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic	All	Hispanic	Non-Hispanic
< 15	7.5	6.8	9.5	9.4	5.4	6.8	8.6	2.8	14.3	-	14.3	7.1	*	4.2	-	-	-
15-17	8.3	8.1	9.4	7.3	9.0	8.1	7.5	8.6	10.9	10.0	10.9	8.6	-	9.3	8.7	*	9.1
18-19	7.4	7.1	9.1	7.0	7.7	7.1	7.0	7.2	13.2	7.7	13.4	6.2	5.3	6.3	78.6	*	16.7
20-24	6.2	5.8	8.0	5.5	6.5	5.8	5.5	6.0	15.0	7.7	15.1	5.0	6.5	4.9	8.7	*	8.1
25-29	5.7	5.5	7.2	5.4	5.8	5.5	5.5	5.5	15.0	9.1	15.1	4.5	-	4.6	6.6	5.9	6.6
30-34	6.2	5.8	8.9	5.1	6.5	5.8	5.1	6.8	14.9	-	15.3	7.4	3.2	7.5	6.9	*	6.8
35-39	7.5	7.6	6.9	7.9	7.4	7.6	8.0	7.5	11.6	-	11.7	6.1	-	6.3	5.9	*	6.0
40+	8.5	8.8	6.8	10.7	7.8	8.8	10.8	8.1	-	-	-	8.9	-	9.1	-	-	-
TOTAL	6.4	6.1	8.1	5.9	6.5	6.1	5.9	6.1	14.1	7.0	14.3	5.7	3.6	5.8	7.6	14.3	7.3

1 Low-birthweight births ratios per 100 live births in corresponding group and calculated only if at least ten live births recorded in 1989.
2 Includes Whites of Hispanic origin.
3 Includes Non-Whites of Hispanic origin.
- No low-birthweight births recorded in 1989.
* Fewer than ten live births.

TABLE 7-19

DISTRIBUTION OF LOW-BIRTHWEIGHT BIRTHS AND LBW RISK[1] BY AMOUNT OF PRENATAL CARE AND COUNTY OF RESIDENCE, ARIZONA, 1989

County of Residence	Distribution of LBW births by number of prenatal visits						Percent distribution of LBW births by number of prenatal visits[2]						Birth ratios[3] of LBW babies by number of prenatal visits				
	All amounts	None	1-4	5-8	9+	Unknown	All amounts	None	1-4	5-8	9+	Unknown	All amounts	None	1-4	5-8	9+
ARIZONA	4,279	327	532	1,025	2,223	172	100.0	7.6	12.4	24.0	52.0	4.0	6.4	13.3	10.8	8.3	4.9
Apache	112	12	17	35	44	4	100.0	10.7	15.2	31.3	39.3	3.6	6.3	21.4	7.8	7.4	4.3
Cochise	123	8	7	24	82	2	100.0	6.5	5.7	19.5	66.7	1.6	7.1	20.0	6.4	7.3	6.7
Coconino	129	4	21	34	68	2	100.0	3.1	16.3	26.4	52.7	1.6	6.3	6.3	9.1	6.5	5.7
Gila	39	8	10	12	8	1	100.0	20.5	25.6	30.8	20.5	2.6	6.0	40.0	13.5	5.9	2.4
Graham	28	0	3	9	13	3	100.0	0.0	10.7	32.1	46.4	10.7	6.3	-	9.1	7.3	4.8
Greenlee	9	2	0	3	4	0	100.0	22.2	0.0	33.3	44.4	0.0	8.7	50.0	-	11.1	6.8
La Paz	17	0	3	10	4	0	100.0	0.0	17.6	58.8	23.5	1.1	7.8	-	9.4	11.8	4.7
Maricopa	2,455	193	272	523	1,345	122	100.0	7.9	11.1	21.3	54.8	5.0	6.3	14.4	11.1	9.2	4.7
Mohave	105	7	17	32	44	5	100.0	6.7	16.2	30.5	41.9	4.8	7.8	15.9	12.6	7.7	6.2
Navajo	160	13	35	50	55	7	100.0	8.1	21.9	31.3	34.3	4.4	8.0	16.0	14.0	8.8	5.5
Pima	713	38	93	186	381	15	100.0	5.3	13.0	26.1	53.4	2.1	6.3	9.8	11.1	7.7	5.1
Pinal	126	12	20	34	53	7	100.0	9.5	15.9	27.0	42.1	5.6	6.0	14.6	9.0	7.0	4.4
Santa Cruz	40	1	7	11	21	0	100.0	2.5	17.5	27.5	52.5	0.0	5.7	3.4	10.3	5.8	5.1
Yavapai	108	6	17	29	55	1	100.0	5.6	15.7	26.9	50.9	0.9	8.7	25.0	20.0	12.6	6.2
Yuma	115	23	10	33	46	3	100.0	20.0	8.7	28.7	40.0	2.6	4.9	8.6	5.6	6.4	3.5

1 Low-birthweight babies as a percent of all live birth in specific category.
2 Percent distribution may not total due to rounding.
3 Denominators are given in Table 7-26.

TABLE 7-20

LOW-BIRTHWEIGHT BIRTHS AND BIRTH RATIOS OF LBW BABIES BY GESTATIONAL AGE, NUMBER OF PRENATAL VISITS AND MOTHER'S ETHNIC GROUP, ARIZONA, 1989

Ethnic group and number of prenatal visits:	ALL LIVE BIRTHS			LOW-BIRTHWEIGHT BIRTHS			BIRTH RATIOS OF LBW BABIES		
		Gestational age:			Gestational age:			Gestational age:	
	Total	<38 weeks	>38 weeks	Total	<38 weeks	>38 weeks	Total	<38 weeks	>38 weeks
ALL ETHNIC GROUPS[1]	67,128	8,488	58,116	4,279	3,126	1,093	6.4	36.8	1.9
<5 prenatal visits	7,394	1,499	5,742	859	658	170	11.6	43.9	3.0
>5 prenatal visits	57,900	6,687	50,887	3,248	2,343	881	5.6	35.0	1.7
WHITE[2]	39,484	4,883	34,441	2,426	1,777	619	6.1	36.4	1.8
<5 prenatal visits	2,414	538	1,830	355	269	70	14.7	50.0	3.8
>5 prenatal visits	36,288	4,208	31,950	1,993	1,448	534	5.5	34.4	1.7
HISPANIC[3]	17,663	2,154	15,308	1,049	756	277	5.9	35.1	1.8
<5 prenatal visits	3,234	554	2,609	274	209	58	8.5	37.7	2.2
>5 prenatal visits	13,735	1,494	12,123	725	509	208	5.3	34.1	1.7
BLACK	2,528	536	1,969	357	267	84	14.1	49.8	4.3
<5 prenatal visits	489	158	321	114	88	23	23.3	55.7	7.2
>5 prenatal visits	1,928	352	1,565	214	163	49	11.1	46.3	3.1
NATIVE AMERICAN	6,338	770	5,477	363	270	89	5.7	35.1	1.6
<5 prenatal visits	1,178	235	915	108	87	18	9.2	37.0	2.0
>5 prenatal visits	4,969	509	4,400	243	170	68	4.9	34.2	1.5

1 Includes ethnic groups other than white, Hispanic, Black and Native American.
2 Non-Hispanic.
3 White of Hispanic origin.

Note: Unknowns for the number of prenatal visits and/orgestational age are included in total births.

TABLE 7-21

BIRTHS BY GESTATIONAL AGE AND BIRTHWEIGHT
BY MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

	TOTAL:[1]		<38 WEEKS OF GESTATION			>38 WEEKS OF GESTATION		
County	All weights	<2,500g	Total	<2,500g	>2,500g	Total	<2,500g	>2,500g
ARIZONA	67,128	4,279	8,488	3,126	5,362	58,116	1,093	57,023
Apache	1,781	112	240	83	157	1,537	28	1,509
Cochise	1,730	123	174	70	104	1,535	51	1,484
Coconino	2,040	129	242	91	151	1,790	38	1,752
Gila	651	39	85	26	59	563	13	550
Graham	448	28	58	22	36	389	5	384
Greenlee	104	9	12	6	6	92	3	89
La Paz	217	17	28	9	19	116	3	113
Maricopa	39,179	2,455	5,041	1,819	3,222	33,857	603	33,254
Mohave	1,353	105	198	69	129	1,115	32	1,083
Navajo	1,993	160	263	124	139	1,715	35	1,680
Pima	11,257	713	1,460	531	929	9,770	175	9,595
Pinal	2,097	126	269	95	174	1,811	27	1,784
Santa Cruz	700	40	84	26	58	615	13	602
Yavapai	1,244	115	175	79	96	2,134	36	2,098
Yuma	2,334	115	175	79	96	2,134	36	2,098

1 Includes records with unspecified birthweight and/or gestational age.

TABLE 7-22

NEWBORNS ADMITTED TO NEWBORN INTENSIVE CARE UNITS BY GESTATIONAL AGE, BIRTHWEIGHT AND MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

County	TOTAL ADMITTED:[1] All weights	TOTAL ADMITTED:[1] <2,500g	<38 WEEKS OF GESTATION Total	<38 WEEKS OF GESTATION <2,500g	<38 WEEKS OF GESTATION >2,500g	>38 WEEKS OF GESTATION Total	>38 WEEKS OF GESTATION <2,500g	>38 WEEKS OF GESTATION >2,500g
ARIZONA	2,576	1,426	1,665	1,331	334	894	84	810
Apache	42	25	30	21	9	11	3	8
Cochise	58	33	37	28	9	21	5	16
Coconino	70	46	51	44	7	19	2	17
Gila	23	9	12	8	4	10	1	9
Graham	14	11	14	11	3	0	0	0
Greenlee	1	1	1	1	0	0	0	0
La Paz	4	3	3	3	0	1	0	1
Maricopa	1,555	817	974	764	210	569	45	524
Mohave	38	26	28	25	3	9	0	9
Navajo	78	56	61	55	6	17	1	16
Pima	506	284	327	263	64	178	20	158
Pinal	77	44	53	42	11	23	2	21
Santa Cruz	20	10	11	9	2	9	1	8
Yavapai	41	30	30	27	3	11	3	8
Yuma	49	31	33	30	3	16	1	15

[1] Includes records with unspecified birthweight and/or gestational age.

TABLE 7-23

SINGLE AND PLURAL RESIDENT LIVE BIRTHS BY BIRTHWEIGHT,
ARIZONA, 1983-1988

Birthweight in grams	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Under 1000, total	222	213	203	217	244	289	313	360	332	365
Single	181	178	169	165	206	235	255	273	260	318
Plural	51	35	34	52	38	54	58	87	72	47
1001-1500, total	232	256	223	297	283	323	368	374	346	318
Single	181	211	189	231	225	253	303	291	275	254
Plural	51	45	34	66	58	70	65	83	71	64
1501-2000, total	588	579	605	617	603	692	6478	700	736	794
Single	461	445	501	480	482	556	514	545	568	591
Plural	127	134	104	137	121	136	134	155	168	203
2001-2500, total	2,047	2,055	2,045	2,073	2,247	2,408	2,456	2,673	2,696	2,802
Single	1,804	1,799	1,804	1,804	1,980	2,084	2,089	2,279	2,296	2,411
Plural	243	256	241	269	267	324	367	394	400	391
2501-4000, total	41,954	43,820	44,328	44,385	46,155	49,720	51,033	52,784	54,948	56,133
Single	11,501	42,847	43,891	43,872	45,663	49,241	50,476	52,181	54,332	55,476
Plural	453	473	437	513	492	479	557	603	616	657
4001 and over, total	4,945	5,156	5,188	5,279	5,538	5,863	5,958	6,396	6,433	6,646
Single	4,951	5,155	5,188	5,275	5,536	5,861	5,956	6,391	6,428	6,662
Plural	3	1	-	4	2	2	2	5	5	4
All weights, total[1]	50,049	51,620	52,628	52,919	55,109	59,344	60,822	63,320	65,544	67,128
Single	49,113	50,670	51,777	51,878	54,131	58,775	59,637	61,989	64,209	65,762
Plural	936	950	851	1,041	978	1,069	1,185	1,331	1,335	1,366

[1] Includes records with unspecified birthweight.

TABLE 7-24

BIRTHS BY TRIMESTER OF PREGNANCY PRENATAL CARE BEGAN
AND MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

County	Total	No Care	1st Trimester	2nd Trimester	3rd Trimester	Unknown
ARIZONA	67,128	2,439	43,272	14,859	5,527	1,031
Apache	1,781	57	934	554	225	11
Cochise	1,730	38	1,159	378	133	22
Coconino	2,040	62	1,034	378	133	22
Gila	651	20	353	202	66	10
Graham	448	9	249	139	38	13
Greenlee	104	5	40	42	9	8
La Paz	217	7	98	62	47	3
Maricopa	39,179	1,329	27,452	7,198	2,459	741
Mohave	1,353	44	690	371	209	39
Navajo	1,993	80	1,022	634	227	30
Pima	11,257	388	6,928	2,848	1,035	58
Pinal	2,097	79	1,187	598	193	40
Santa Cruz	700	29	341	228	100	2
Yavapai	1,244	24	795	305	115	5
Yuma	2,334	268	990	632	410	34

TABLE 7-25

BIRTHS BY MOTHER'S AGE GROUP, ETHNICITY AND TRIMESTER OF PREGNANCY PRENATAL CARE BEGAN, ARIZONA, 1989

Trimester of pregnancy prenatal care began by ethnic group	ALL AGES	UNDER 15	15-17	18-19	20-24	25-29	30-34	35-39	40+
ALL ETHNIC GROUPS	[1]67,128	159	3,193	6,023	19,501	20,450	12,760	4,266	716
1st trimester	42,372	59	1,309	2,704	11,273	14,553	9,681	3,182	490
2nd trimester	14,859	57	1,129	2,031	5,007	3,771	2,000	698	150
3rd trimester	5,527	24	456	808	1,984	1,323	660	221	45
No prenatal care	2,439	14	221	356	866	558	283	112	21
Not stated	1,031	5	78	124	371	245	136	53	10
WHITE[2]	39,484	36	1,215	2,853	10,539	13,053	8,534	2,815	432
1st trimester	29,224	13	549	1,424	7,002	10,398	7,167	2,324	432
2nd trimester	7,054	16	424	964	2,417	1,864	952	347	70
3rd trimester	2,126	5	164	331	749	516	261	85	14
No prenatal care	685	2	51	95	228	177	90	37	5
Not stated	395	0	27	39	143	98	64	22	2
HISPANIC[3]	17,663	81	1,294	2,084	5,941	4,693	2,551	845	166
1st trimester	8,926	31	508	839	2,816	2,664	1,475	503	88
2nd trimester	4,828	27	445	686	1,669	1,139	624	192	43
3rd trimester	2,228	11	194	316	827	524	267	71	18
No prenatal care	1,260	9	116	185	469	267	142	58	12
Not stated	421	3	31	58	160	99	43	21	5
BLACK	2,528	14	230	349	836	635	355	95	13
1st trimester	1,384	6	87	148	457	381	241	57	7
2nd trimester	673	5	86	106	207	159	76	29	3
3rd trimester	216	2	22	51	81	37	17	5	1
No prenatal care	180	0	22	35	64	41	14	3	1
Not stated	75	1	13	9	27	17	7	1	0
NATIVE AMERICAN	6,338	28	431	678	1,979	1,709	1,000	393	90
1st trimester	2,964	9	151	266	875	843	556	206	45
2nd trimester	2,104	9	171	253	673	543	297	117	29
3rd trimester	886	6	72	107	305	226	102	51	12
No prenatal care	278	3	30	37	91	67	31	12	1
Not stated	106	1	7	15	35	24	14	7	3
OTHER RACE	1,106	0	23	59	206	365	320	118	15
1st trimester	774	0	14	27	123	267	242	92	9
2nd trimester	200	0	3	22	41	66	51	13	4
3rd trimester	71	0	4	3	22	20	13	9	0
No prenatal care	36	0	2	4	14	6	6	2	2
Not stated	25	0	0	3	6	6	8	2	0

1 Includes records with unknown or unspecified race.
2 Non-Hispanic.
3 White of Hispanic origin.

TABLE 7-26

FREQUENCY DISTRIBUTION OF BIRTHS BY AMOUNT OF PRENATAL VISITS AND COUNTY OF RESIDENCE, ARIZONA, 1989

County	Total	None	1-4	5-8	9+	Unknown
ARIZONA	67,128	2,457	4,937	12,302	45,598	1,834
Apache	1,781	56	217	471	1,013	24
Cochise	1,730	40	110	329	1,216	35
Coconino	2,040	64	232	521	1,195	28
Gila	651	20	74	205	334	18
Graham	448	9	33	123	271	12
Greenlee	104	4	11	27	59	3
La Paz	217	7	32	85	85	8
Maricopa	39,179	1,340	2,447	5,710	28,350	1,332
Mohave	1,353	44	135	417	714	43
Navajo	1,993	81	250	566	1,002	94
Pima	11,257	389	841	2,425	7,528	74
Pinal	2,097	82	223	489	1,212	91
Santa Cruz	700	29	68	189	410	4
Yavapai	1,244	24	85	231	894	10
Yuma	2,334	268	179	514	1,315	58

TABLE 7-27

BIRTHS BY MOTHER'S AGE GROUP, ETHNICITY AND NUMBER OF PRENATAL VISITS, ARIZONA, 1989

Number of prenatal visits by ethnic group:	ALL AGES	UNDER 15	15-17	18-19	20-24	25-29	30-34	35-39	40+
ALL ETHNIC GROUPS[1]	67,128	159	3,193	6,023	19,501	20,450	12,760	4,266	716
None	2,457	14	222	361	868	563	284	114	23
1-4	4,937	24	409	753	1,735	1,167	576	215	51
5-8	12,302	41	845	1,457	3,990	3,327	1,872	634	124
9-12	27,092	49	1,061	2,163	7,580	8,529	5,612	1,787	295
13+	18,506	24	514	1,089	4,686	6,370	4,189	1,422	205
WHITE[2]	39,484	36	1,215	2,853	10,539	13,053	8,534	2,815	432
None	695	2	52	97	230	180	92	36	6
1-4	1,719	4	142	283	572	418	202	77	20
5-8	5,741	13	293	622	1,792	1,621	1,002	337	60
9-12	17,545	13	474	1,153	4,565	5,898	3,971	1,269	199
13+	13,002	4	214	618	3,115	4,711	3,151	1,044	143
HISPANIC[3]	17,663	81	1,294	2,084	5,941	4,693	2,551	845	166
None	1,259	9	116	185	467	268	140	60	12
1-4	1,975	12	162	290	733	457	231	69	21
5-8	4,052	18	334	516	1,421	1,036	525	164	35
9-12	6,154	23	400	697	2,027	1,681	975	298	52
13+	3,529	16	212	309	1,033	1,079	617	225	37
BLACK	2,528	14	230	349	836	635	355	95	13
None	183	0	23	36	66	41	13	3	1
1-4	306	2	32	60	106	59	35	11	0
5-8	536	4	59	93	168	131	64	16	1
9-12	836	5	72	91	278	208	135	37	10
13+	556	0	28	56	177	173	96	26	0
NATIVE AMERICAN	6,338	28	431	678	1,979	1,703	1,000	393	90
None	283	3	29	38	91	68	33	13	2
1-4	895	6	70	116	314	221	99	54	10
5-8	1,775	6	153	205	571	473	234	99	26
9-12	2,046	8	108	203	625	574	365	125	26
13+	1,148	4	55	97	315	308	247	96	22
OTHER RACE	1,106	0	23	59	206	365	320	118	15
None	37	0	2	5	14	6	6	2	2
1-4	42	0	3	4	10	12	9	4	0
5-8	198	0	6	21	38	66	47	18	2
9-12	511	0	7	19	85	168	166	58	8
13+	271	0	5	9	46	99	78	31	3

1 Includes records with unknown or unspecified race. Totals for each race include records with unspecified number of prenatal visits.
2 Non-Hispanic
3 White of Hispanic origin.

TABLE 7-28

BIRTHS BY MOTHER'S AGE GROUP, ETHNICITY AND PAYING PARTY FOR THE DELIVERY, ARIZONA, 1989

PAYEE FOR THE DELIVERY BY MOTHER'S ETHNIC GROUP:	ALL AGES	UNDER 15	15-17	18-19	20-24	25-29	30-34	35-39	40+
ALL ETHNIC GROUPS[1]	67,128	159	3,193	6,023	19,501	20,450	12,760	4,266	716
AHCCCS[2]	17,790	72	1,495	3,022	6,693	3,962	1,847	593	0
IHS[3]	3,998	16	278	399	1,272	1,082	644	253	0
PRIVATE INSURANCE	33,985	39	834	1,516	7,879	12,158	8,379	2,759	0
SELF	8,107	22	438	770	2,689	2,323	1,320	454	0
UNKNOWN	3,248	10	148	316	968	925	570	207	0
WHITE[4] 39.484	36	1,215	2,853	10,539	13,053	8,534	2,815	432	
AHCCCS	7,617	38	713	1,259	2,802	1,656	819	276	53
IHS	80	1	14	10	23	20	10	2	0
PRIVATE INSURANCE	6,240	24	290	412	1,782	2,026	1,236	400	68
SELF	3,027	15	240	378	1,089	806	388	135	35
UNKNOWN	699	3	37	85	245	185	98	32	10
HISPANIC[5]	17,663	81	1,294	2,084	5,941	4,693	2,551	845	166
AHCCCS	7,617	38	713	1,259	2,802	1,656	819	276	53
IHS	80	1	14	10	23	20	10	2	0
PRIVATE INSURANCE	3,240	24	290	412	1,782	2,026	1,236	400	68
SELF	3,027	15	240	318	1,089	806	388	135	35
UNKNOWN	699	3	37	85	245	185	98	32	10
BLACK	2,528	14	230	349	836	635	355	95	13
AHCCCS	1,261	9	139	236	477	257	114	26	2
IHS	18	0	1	1	7	5	3	1	0
PRIVATE INSURANCE	932	4	57	71	240	303	188	62	7
SELF	207	1	22	24	74	45	34	5	2
UNKNOWN	110	0	11	17	38	25	16	1	2
NATIVE AMERICAN	6,338	28	431	678	1,979	1,703	1,000	393	90
AHCCCS	1,315	8	90	186	456	342	171	51	11
IHS	3,733	14	253	375	1,203	998	598	240	51
PRIVATE INSURANCE	516	1	31	35	104	157	122	54	12
SELF	195	1	21	30	47	66	20	8	2
UNKNOWN	579	4	36	52	169	140	89	40	14
OTHER RACE	1,106	0	23	59	206	365	320	118	15
AHCCCS	168	0	7	23	48	55	21	11	3
IHS	5	0	0	0	0	2	2	1	0
PRIVATE INSURANCE	725	0	14	25	120	232	243	81	10
SELF	146	0	1	5	28	56	37	18	1
UNKNOWN	62	0	1	6	10	20	17	7	1

1 Includes records with unknown or unspecified race. Totals for each race include records with unspecified number of prenatal visits.
2 The Arizona Health Care Cost Containment System is the state's alternative to Medicaid.
3 Indian Health Services.
4 Non-Hispanic.
5 White of Hispanic origin.

TABLE 7-29

BIRTHS BY MOTHER'S AGE GROUP, ETHNICITY AND NUMBER OF PREVIOUS LIVE BIRTHS, ARIZONA, 1989

Number of previous live births by ethnic group:	ALL AGES	UNDER 15	15-17	18-19	20-24	25-29	30-34	35-39	40+
ALL ETHNIC GROUPS[1]	67,128	159	3,193	6,023	19,501	20,450	12,760	4,266	716
None	25,610	155	2,720	4,226	8,483	6,294	2,864	764	89
1	20,345	4	410	1,439	6,626	6,703	3,901	1,120	129
2	11,701	0	55	306	3,045	4,322	2,943	879	140
3	5,328	0	5	45	993	1,976	1,607	583	109
4 or more	4,098	0	1	3	338	1,141	1,440	917	247
WHITE[2]	39,484	36	1,215	2,853	10,539	13,053	8,534	2,815	432
None	16,250	36	1,094	2,192	5,205	4,727	2,300	626	67
1	12,698	0	109	567	3,588	4,517	2,949	863	104
2	6,461	0	11	83	1,318	2,514	1,856	582	96
3	2,395	0	0	8	336	883	797	315	55
4 or more	1,655	0	0	0	84	405	630	427	108
HISPANIC[3]	17,663	81	1,294	2,084	5,941	4,693	2,551	845	166
None	6,301	78	1,080	1,377	2,285	1,046	328	88	15
1	4,983	3	183	539	2,034	1,471	584	151	16
2	3,283	0	27	144	1,065	1,133	696	188	29
3	1,727	0	3	22	398	622	494	154	34
4 or more	1,359	0	0	1	156	417	448	264	72
BLACK	2,528	14	230	349	836	635	355	95	13
None	918	14	179	204	313	140	55	12	1
1	696	0	41	107	236	195	91	23	2
2	494	0	8	31	185	153	97	18	2
3	240	0	1	6	66	81	67	17	2
4 or more	179	0	1	1	36	66	45	24	6
NATIVE AMERICAN	6,338	28	431	678	1,979	1,703	1,000	393	90
None	1,672	27	347	408	572	204	89	15	4
1	1,606	1	74	215	701	406	151	47	3
2	1,297	0	9	45	453	481	235	57	9
3	895	0	1	9	189	365	220	89	17
4 or more	865	0	0	1	61	247	305	185	57
OTHER RACE	1,106	23	59	206	365	320	118	15	0
None	467	20	45	108	177	92	23	2	0
1	361	3	11	67	114	126	36	4	0
2	165	0	3	24	41	59	34	4	0
3	67	0	0	4	25	29	8	1	0
4 or more	40	0	0	1	6	12	17	4	0

1 Includes records with unknown or unspecified race. Totals for each race include records with unspecified number of prenatal visits.
2 Non-Hispanic
3 White of Hispanic origin.

TABLE 7-30

AVERAGE NUMBER[1] OF PRENATAL VISITS DURING PREGNANCY ACCORDING TO SELECTED CHARACTERISTICS OF NEWBORNS AND MOTHERS GIVING BVIRTHS BY COUNTY OF RESIDENCE, ARIZONA, 1989

County of Residence	ALL BIRTHS	MARITAL STATUS:		PAYEE FOR THE DELIVERY					MOTHERS' ETHNIC GROUP:				LENGTH OF GESTATION:		LBW NEWBORN:		NEWBORN ADMITTED TO INTENSIVE CARE UNIT	
		WED	UNWED	AHCCCS[2]	IHS[3]	PRIVATE INSURANCE	SELF	UNKNOWN	WHITE[4]	HISPANIC[5]	BLACK	NATIVE AMERICAN	<38 WEEKS	>38 WEEKS	YES	NO	YES	NO
ARIZONA	10.7	11.3	9.3	9.0	9.1	11.9	10.4	9.7	11.5	9.7	10.0	9.1	10.2	10.8	10.0	10.8	10.5	10.8
Apache	9.6	10.3	9.1	8.8	9.7	11.5	12.0	8.9	11.0	10.7	12.7	9.4	8.9	9.8	9.1	9.7	8.0	9.8
Cochise	10.6	10.9	9.4	9.4	8.3	11.2	11.0	10.2	10.9	10.1	10.8	12.0	9.7	10.7	10.4	10.6	10.3	10.6
Coconino	10.0	10.9	8.5	9.0	8.3	12.4	10.9	8.2	11.8	10.3	9.3	8.3	9.8	10.0	9.1	10.0	8.8	10.0
Gila	9.0	9.6	8.0	8.4	8.5	10.5	9.2	5.6	10.0	8.1	7.7	8.0	7.9	9.2	6.8	9.1	8.2	9.1
Graham	9.4	9.7	8.6	9.0	8.2	10.2	7.9	8.2	9.8	9.4	7.8	8.0	8.1	9.5	8.4	9.4	6.5	9.5
Greenlee	8.8	9.3	6.8	6.7	8.4	9.6	9.4	-	9.2	8.1	16.0	7.3	9.2	8.7	8.3	8.8	5.0	8.8
La Paz	8.1	8.7	7.6	6.5	9.4	10.6	9.7	7.7	8.2	6.9	11.0	9.7	7.2	8.6	6.5	8.3	7.3	8.4
Maricopa	11.1	11.7	9.5	9.0	8.4	12.2	10.5	10.6	11.8	9.6	9.9	8.9	10.7	11.2	10.6	11.2	10.8	11.2
Mohave	9.3	9.4	8.6	8.6	6.0	9.9	8.7	8.6	9.3	9.6	12.0	7.6	9.2	9.2	9.1	9.3	9.4	9.4
Navajo	9.1	9.4	8.7	8.8	8.8	10.1	9.3	9.2	9.7	9.6	10.2	8.8	8.2	9.2	8.1	9.2	8.1	9.1
Pima	10.8	11.2	9.8	9.5	11.7	11.6	10.0	9.6	11.1	10.1	10.1	11.0	10.3	10.8	10.0	10.8	10.7	10.8
Pinal	9.8	10.4	9.0	8.8	10.2	11.1	9.5	9.4	10.4	9.1	8.5	9.9	8.6	10.0	8.9	9.9	9.9	9.8
Santa Cruz	9.9	10.2	9.1	9.7	9.1	10.2	9.7	9.5	10.8	9.8	6.0	-	9.4	9.9	9.0	9.9	9.5	9.9
Yavapai	10.4	11.0	8.7	8.9	9.2	11.7	10.5	9.5	10.6	9.4	5.7	7.8	9.2	10.6	8.4	10.6	8.5	10.5
Yuma	10.4	10.9	8.5	7.8	9.4	11.2	11.5	8.4	11.3	9.7	11.0	9.4	9.7	10.4	9.0	10.4	10.9	10.4

1 The arithmetic mean value for the number of prenatal visits in specified group. Excluded are cases with no prenatal care and/or unspecified number of prenatal visits.
2 The Arizona Health Care Cost Containment System is the state's alternative to Medicaid.
3 Indian Health Services.
4 Non-Hispanic.
5 White of Hispanic origin.

TABLE 7-31

NUMBER OF BIRTHS TO UNWED MOTHERS AND BIRTHS RATIOS[1] BY ETHNICITY
ARIZONA, 1980-1989

Year	All Live Births						Live Births to Unwed Mothers						Ratios of Birth to Unwed Mothers					
	All Ethnic Groups	White[2]	Hispanic[3]	Black	Native American	Other Race	All Ethnic Groups	White	Hispanic	Black	Native American	Other Race	All Ethnic Groups	White	Hispanic	Black	Native American	Other Race
1980	50,049	31,597	11,495	1,634	4,796	527	9,373	3,233	2,983	832	2,213	21	18.7	10.2	26.0	50.9	46.1	4.0
1981	51,620	32,495	11,896	1,759	4,878	592	10,009	3,603	3,183	1,071	2,324	41	19.4	11.1	26.8	60.9	47.6	6.9
1982	52,628	33,419	11,630	1,800	5,137	642	10,798	3,985	3,349	940	2,489	32	20.5	11.9	28.8	52.2	48.5	5.0
1983	52,919	33,664	11,477	1,820	5,297	661	11,704	4,290	3,708	954	2,711	40	22.1	12.7	32.3	52.4	51.2	6.1
1984	55,109	35,183	12,067	1,911	5,265	683	12,832	4,837	4,162	1,048	2,736	49	23.3	13.7	34.5	54.8	52.0	7.2
1985	59,344	37,972	13,062	1,969	5,478	863	14,158	5,639	4,533	1,080	2,842	64	23.9	14.9	34.7	54.9	51.9	7.4
1986	60,822	38,044	14,044	2,157	5,718	859	15,600	6,060	5,108	1,186	3,158	88	25.6	15.9	36.4	55.0	55.2	10.2
1987	63,320	39,616	14,402	2,289	6,036	977	17,161	6,794	5,575	1,307	3,389	96	27.1	17.1	38.7	57.1	56.1	9.8
1988	65,544	39,821	15,952	2,406	6,240	1,052	18,716	7,339	6,286	1,392	3,561	138	28.6	18.4	39.4	57.9	57.1	13.1
1989	67,128	39,484	17,663	2,528	6,338	1,106	20,612	7,935	7,326	1,550	3,665	136	30.7	20.1	41.5	61.3	57.8	12.3

1 Ratio per 100 births in specific group.
2 Non-Hispanic.
3 White of Hispanic origin.

TABLE 7-32

BIRTHS TO UNWED MOTHERS BY MOTHER'S COUNTY OF RESIDENCE AND AGE GROUP
Arizona, 1989

County of Residence	ALL AGES		Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40 +
	Number	Ratio[1]								
ARIZONA	20,612		154	2,605	3,784	7,122	4,133	1,965	699	124
Ratio		**30.7**	**96.9**	**81.6**	**62.8**	**36.5**	**20.2**	**15.4**	**16.4**	**17.3**
Apache	907	**50.9**	3	87	146	285	199	104	60	8
Cochise	433	**25.0**	4	69	74	150	82	43	10	1
Coconino	835	**40.9**	4	80	152	284	192	81	31	9
Gila	242	**37.2**	0	36	50	86	47	15	8	0
Graham	141	**31.5**	2	18	35	56	22	6	1	1
Greenlee	25	**24.0**	0	6	5	8	3	2	1	0
La Paz	48	**22.1**	1	7	3	16	13	6	2	0
Maricopa	11,271	**28.8**	95	1,495	2,121	3,922	2,222	1,020	330	55
Mohave	377	**27.9**	1	44	69	133	72	38	18	2
Navajo	881	**44.2**	4	98	125	313	183	108	41	7
Pima	3,468	**30.8**	21	406	630	1,204	702	349	134	22
Pinal	875	**41.7**	14	124	174	304	164	68	23	4
Santa Cruz	186	**26.6**	1	24	31	58	32	31	8	1
Yavapai	320	**25.7**	0	43	63	105	64	27	15	3
Yuma	603	**25.8**	4	68	106	198	136	67	17	7

[1] Number of births to unmarried women per 100 live births in specified group.

TABLE 7-33

BIRTHS TO UNWED MOTHERS BY MOTHER'S COUNTY OF RESIDENCE, ETHNICITY AND EDUCATION
ARIZONA, 1989

	ETHNIC GROUP						EDUCATION				
County of Residence	Total	White[1]	Hispanic[2]	Black	Native American	Other	Elementary[3]	High School	College	Advanced Degree	Not Stated
ARIZONA	20,612	7,935	7,326	1,550	3,665	136	2,560	14,466	2,658	114	814
Ratio[4]	30.7	20.1	41.5	61.3	57.8	12.3	45.4	38.4	14.3	4.6	30.2
Apache	907	29	16	0	862	0	63	647	143	3	51
Cochise	433	158	230	27	7	11	49	255	56	0	73
Coconino	835	177	75	16	566	1	51	616	152	8	8
Gila	242	78	42	2	119	1	16	197	24	0	5
Graham	141	48	52	3	37	1	8	106	23	0	4
Greenlee	25	9	15	0	1	0	2	21	2	0	0
La Paz	48	19	19	2	7	1	7	33	5	1	2
Maricopa	11,271	5,013	4,279	1,181	707	91	1,586	7,680	1,449	69	487
Mohave	377	389	21	1	23	3	22	301	34	0	20
Navajo	881	101	35	9	734	2	61	657	118	1	44
Pima	3,468	1,256	1,605	226	362	19	377	2,548	445	26	72
Pinal	875	282	332	62	195	4	126	624	89	2	34
Santa Cruz	186	10	175	1	0	0	36	129	20	1	0
Yavapai	320	260	38	1	21	0	25	233	54	1	7
Yuma	603	166	392	19	24	2	131	419	44	2	7

1 Non-Hispanic.
2 White of Hispanic origin.
3 Eight grades or less.
4 Number of births to unmarried women per 100 live births in specified group.

TABLE 7-34

NUMBER OF BIRTHS AND RATIOS[1] OF BIRTH TO UNWED MOTHERS BY AGE GROUP AND ETHNICITY, ARIZONA, 1989

Mother's Age Group	NUMBER OF BIRTHS TO UNWED MOTHERS						RATIOS OF BIRTHS TO UNWED MOTHERS					
	Non-Hispanic White	Hispanic	Black	Native American	Other	Total	Non-Hispanic White	Hispanic	Black	Native American	Other	Total
Under 15	32	81	14	27	0	154	88.9	100.0	100.0	96.4	-	96.9
15-19	2,441	2,441	524	966	17	6,389	60.0	71.4	90.5	87.1	57.3	69.3
20-24	2,725	2,574	552	1,227	44	7,122	25.9	43.3	66.0	62.0	21.4	36.5
25-29	1,636	1,366	290	818	23	4,133	12.5	29.1	45.7	48.0	6.3	20.2
30-34	769	633	129	422	12	1,965	9.0	24.8	36.3	42.2	3.8	15.4
35-39	284	214	36	158	7	699	10.1	25.3	37.9	40.2	5.9	16.4
40+	46	43	4	28	3	124	10.6	25.9	30.8	31.1	20.0	17.3
ALL AGES	7,935	7,326	1,550	3,665	136	20,612	20.1	41.5	61.3	57.8	12.3	30.7

[1] Births to unwed mothers per 100 births in specified group.

TABLE 7-35

NUMBER OF LOW BIRTHWEIGHT BIRTHS BY MOTHER'S MARITAL STATUS[1], AGE GROUP AND ETHNIC GROUP, ARIZONA, 1989

	MARRIED						UNMARRIED					
Mother's Age Group	Non-Hispanic White	Hispanic	Black	Native American	Other	Total	Non-Hispanic White	Hispanic	Black	Native American	Other	Total
Under 15	0	0	0	0	0	0	1	7	2	2	0	12
15-17	28	10	0	1	0	39	75	87	24	36	2	224
18-19	88	48	2	11	4	153	115	96	44	31	7	293
20-24	412	173	38	30	14	667	223	151	87	68	4	533
25-29	570	170	38	32	20	830	144	85	57	44	4	334
30-34	435	84	28	32	24	600	82	47	24	42	0	195
35-39	165	40	8	11	5	229	44	28	3	13	2	90
40+	29	15	0	5	0	49	6	3	0	3	0	12
Total	1,727	540	114	122	64	2,567	690	505	241	240	19	1,695

[1] Excludes records with unspecified marital status.

TABLE 7-36

BIRTH RATIOS[1] OF LOW BIRTHWEIGHT BABIES BY MOTHER'S MARITAL STATUS, AGE GROUP AND ETHNIC GROUP, ARIZONA, 1989

	MARRIED						UNMARRIED					
Mother's Age Group	Non-Hispanic White	Hispanic	Black	Native American	Other	Total	Non-Hispanic White	Hispanic	Black	Native American	Other	Total
Under 15	-	-	-	-	-	-	3.1	8.6	14.3	7.4	-	7.8
15-17	9.7	3.9	-	5.9	-	6.8	8.1	8.4	10.8	8.8	11.8	8.6
18-19	6.6	6.8	4.3	9.9	13.8	6.9	7.6	7.0	14.6	5.6	23.3	7.7
20-24	5.3	5.2	13.5	4.2	8.7	5.4	8.2	5.9	15.8	5.5	9.1	7.5
25-29	5.0	5.1	11.0	3.7	5.8	5.1	8.8	6.2	19.7	5.4	7.4	8.1
30-34	5.6	4.4	12.4	5.6	6.9	5.6	10.7	7.4	18.6	10.0	-	9.9
35-39	6.5	6.4	13.6	4.7	4.5	6.4	15.5	13.1	8.3	8.2	28.6	12.9
40+	7.5	12.3	-	8.5	-	8.3	13.0	7.0	-	10.7	-	9.7
Total	5.5	5.3	11.7	4.7	6.6	5.6	8.7	6.9	15.5	6.5	14.0	8.2

1 Number of low birthweight births per 100 live births in specified group.

TABLE 7-37

LIVE BIRTHS BY MOTHER'S AGE AND FATHER'S AGE, ARIZONA, 1989

	Mother's Age										
Father's Age:	<15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45+	Unknown	Total
<15	2	4	3	1	1	0	0	0	0	0	11
15-17	3	168	108	31	2	0	0	0	0	0	313
18-19	9	430	661	334	27	8	3	0	0	0	1,472
20-24	5	533	1,898	6,365	1,291	241	38	6	0	1	10,379
25-29	3	86	480	5,661	8,686	1,702	255	27	0	2	16,902
30-34	1	28	97	1,371	5,576	5,530	785	52	3	2	13,445
35-39	0	5	27	353	1,306	2,857	1,663	129	2	1	6,343
40-44	0	2	9	122	407	743	755	239	4	0	2,281
45+	0	5	5	56	163	310	297	147	12	0	995
Unknown	196	1,932	2,735	5,207	2,991	1,369	470	89	6	54	14,987
Total	159	3,193	6,023	19,501	20,450	12,760	4,266	689	27	60	67,128

TABLE 7-38

LIVE BIRTHS BY MOTHER'S ETHNIC GROUP AND FATHER'S ETHNIC GROUP, ARIZONA, 1989

	Mother's Ethnic Group:					
Father's Ethnic Group	White	Hispanic	Black	Native American	Other	Total
White	30,250	1,842	83	245	278	32,698
Hispanic	2,317	9,938	46	274	39	12,614
Black	338	145	1,023	42	32	1,580
Native American	202	112	11	2,951	5	3,281
Other	6,377	5,626	1,365	2,826	752	16,954
Total	39,484	17,663	2,528	6,338	1,106	67,128

TABLE 7-39

LIVE BIRTHS BY MOTHER'S AND FATHER'S EDUCATION, ARIZONA, 1989

	Years of School Completed by Mother:					
Years of School Completed by Father	≤ 8	9-12	13-16	17+	Unknown	Total
≤ 8	1,981	1,452	151	8	85	3,677
9-12	1,269	19,029	4,045	190	425	24,958
13-16	165	5,092	10,171	878	64	16,370
17+	19	513	2,358	1,337	11	4,238
Unknown	2,208	11,602	1,886	76	2,113	17,885
Total	5,642	37,688	18,611	2,489	2,698	67,128

TABLE 7-40

BIRTHS WITH CONGENITAL ANOMALIES MENTIONED ON BIRTH CERTIFICATE BY COUNTY OF RESIDENCE, ARIZONA, 1989

Congenital Anomalies	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL Births with Anomalies	1,328	38	36	41	22	10	5	8	809	32	43	170	51	17	24	19
Rate per 1,000 Births	19.8	21.3	20.8	20.1	33.8	22.3	9.6	36.9	20.6	23.7	23.1	15.1	24.3	24.3	19.3	8.1
TOTAL Anomalies Mentioned	1,445	41	37	52	24	10	5	8	875	39	52	188	52	17	26	19
Anencephalus	7	0	0	0	0	0	0	0	3	0	1	3	0	0	0	0
Spina Bifida/Meningocele	14	1	0	1	1	0	0	0	9	0	1	1	0	0		0
Hydrocephalus	11	1	0	0	1	0	0	0	6	0	0	2	0	0	1	0
Microcephalus	4	0	0	0	0	0	0	0	3	0	0	1		0	0	0
Other Central Nervous System Anomalies	10	0	0	0	0	0	0	0	7	0	1	2	0	0	0	0
Heart Malformations	77	1	1	5	2	0	0	0	40	2	5	15	2	0	4	0
Other Circulatory/Respiratory Anomalies	89	3	2	4	3	0	0	0	64	1	6	5	0	0	1	0
Rectal Atresia/Stenosis	7	0	0	2	0	1	0	0	2	0	0	1	1	0	0	0
Tracheo-Esophageal Fistula/ Esophageal Atresia	16	0	0	2	0	0	0	0	8	1	0	5	0	0	0	0
Omphalocele/Gastroschisis	10	0	0	0	0	0	0		5	0	1	4	0	0	0	0
Other Gastrointestinal Anomalies	15	0	1	2	0	0	0	0	9	2	0	0	1	0	0	0
Malformed Genitalia	35	3	0	2	0	0	0	0	25	1	0	4	0	0	0	0
Renal Agenesis	9	0	1	1	0	0	0	0	5	1	0	1	0	0	0	0
Other Urogenital Anomalies	48	0	3	3	0	1	0	0	27	3	4	7	0	0	0	0
Cleft Lip/Palate	77	6	1	3	2	2	0	2	36	0	3	11	2	0	5	4
Polydactyly/Syndactyly/Adactyly	39	2	1	5	3	0	0	0	18	1	2	6	1	0	0	0
Club Foot	42	3	4	1	0	0	1	1	22	2	1	2	1	1	1	2
Diaphragmatic Hernia	10	0	0	0	0	0	0	0	7	0	1	0	0	0	1	1
Other Muscosceletal/Integumental Anomalies	47	2	3	3	1	0	1	0	19	2	4	8	1	1	2	0
Down's Syndrome	28	1	1	2	1	0	0	1	10	3	2	6	1	0	0	0
Other Chromosomal Anomalies	38	0	1	1	0	0	0	0	15	2	1	12	3	1	2	0
Other	812	18	18	15	10	6	3	4	535	18	19	92	39	14	9	12

TABLE 7-41

BIRTHS WITH CONGENITAL ANOMALIES MENTIONED ON BIRTH CERTIFICATE BY ETHNIC GROUP AND SEX OF CHILD, ARIZONA, 1989

Congenital Anomalies	All Ethnic Groups	White[1]			Hispanic[2]			Native Americans			Black			Other Race		
		T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
TOTAL Births with Anomalies Mentioned	1,328	701	396	305	392	229	163	134	70	64	81	39	42	20	15	5
Rate per 1,000 Births	19.8	19.1	20.9	17.1	19.7	22.3	16.9	21.3	22.2	20.3	26.3	24.8	27.7	18.7	25.7	10.3
TOTAL Anomalies Mentioned	1,445	772	440	332	422	248	174	143	74	69	87	42	45	21	15	6
Anencephalus	7	3	2	1	3	1	2	0	0	0	0	0	0	1	1	0
Spina Bifida/Meningocele	14	6	5	1	6	2	4	2	0	2	0	0	0	0	0	0
Hydrocephalus	11	5	3	2	4	4	0	1	0	1	1	1	0	0	0	0
Microcephalus	4	3	2	1	1	0	1	0	0	0	0	0	0	0	0	0
Other Central Nervous System Anomalies	10	4	3	1	5	3	2	1	0	1	0	0	0	0	0	0
Heart Malformations	77	43	29	14	16	9	7	9	5	4	8	3	5	1	0	1
Other Circulatory/Respiratory Anomalies	89	33	19	14	41	25	16	6	2	4	8	5	3	1	1	0
Rectal Atresia/Stenosis	7	3	2	1	1	1	0	2	0	2	1	0	1	0	0	0
Tracheo-Esophageal Fistula/ Esophageal Atresia	16	12	8	4	1	1	0	1	1	0	1	1	0	1	0	1
Omphalocele/Gastroschisis	10	5	3	2	4	3	1	1	1	0	0	0	0	0	0	0
Other Gastrointestinal Anomalies	15	7	6	1	4	2	2	2	1	1	1	0	1	1	0	1
Malformed Genitalia	35	20	17	3	9	5	4	3	1	2	2	2	0	1	0	1
Renal Agenesis	9	6	3	3	3	2	1	0	0	0	0	0	0	0	0	0
Other Urogenital Anomalies	48	29	24	5	9	8	1	5	4	1	3	2	1	2	2	0
Cleft Lip/Palate	77	34	19	15	19	13	6	20	17	3	3	3	0	1	1	0
Polydactyly/Syndactyly/Adactyly	39	17	9	8	12	7	5	7	1	6	3	0	3	0	0	0
Club Foot	42	23	10	13	15	15	0	2	1	1	1	1	0	1	1	0
Diaphragmatic Hernia	10	6	3	3	3	3	0	0	0	0	1	0	1	0	0	0
Other Muscoskeletal/Integumental Anomalies	47	23	11	12	11	5	6	10	7	3	2	0	2	1	0	1
Down's Syndrome	28	18	8	10	4	3	1	6	3	3	0	0	0	0	0	0
Other Chromosomal Anomalies	38	15	6	9	18	12	6	2	1	1	2	1	1	1	1	0
Other	812	457	248	209	233	124	109	63	29	34	50	23	27	9	8	1

1 Non-Hispanic.
2 White of Hispanic origin.

TABLE 7-42

TOTAL BIRTHS AND LOW-BIRTHWEIGHT BIRTHS BY THE PAYING PARTY FOR THE DELIVERY AND MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

COUNTY OF RESIDENCE	TOTAL BIRTHS, ALL WEIGHT						LOW-BIRTHWEIGHT BIRTHS:					
	TOTAL	AHCCCS[1]	IHS[2]	PRIVATE INSURANCE	SELF	UNKNOWN	TOTAL	AHCCCS	IHS	PRIVATE INSURANCE	SELF	UNKNOWN
ARIZONA	67,128	17,790	3,998	33,985	8,107	3,248	4,279	1,385	204	1,965	487	238
Apache	1,781	207	1,070	149	25	330	112	12	55	18	5	22
Cochise	1,730	577	3	846	249	55	123	38	0	57	19	9
Coconino	2,040	385	780	640	163	72	129	30	22	54	13	10
Gila	651	272	110	184	64	21	39	16	5	10	7	1
Graham	448	203	21	182	35	7	28	9	1	15	1	2
Greenlee	104	31	0	64	8	1	9	3	0	5	0	1
La Paz	217	74	9	46	14	74	17	6	0	4	1	6
Maricopa	39,179	9,901	560	22,194	5,144	1,380	2,455	776	18	1,247	309	105
Mohave	1,353	330	7	663	120	233	105	35	0	54	8	8
Navajo	1,993	381	1,002	359	115	136	160	45	76	17	11	11
Pima	11,257	3,235	275	5,920	1,054	773	713	264	20	326	53	50
Pinal	2,097	928	120	758	236	55	126	50	4	52	15	5
Santa Cruz	700	281	0	259	131	29	40	20	0	12	4	4
Yavapai	1,244	437	17	528	231	31	108	46	1	41	18	2
Yuma	2,334	548	24	1,193	518	51	115	35	2	53	23	2

1 The Arizona Health Care Cost Containment System is the state's alternative to Medicaid.
2 Indian Health Services.

TABLE 7-43

MEDICAL AND OTHER RISK FACTORS BY MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL BIRTHS	67,128	1,781	1,730	2,040	651	448	104	217	39,179	1,353	1,993	11,257	2,097	700	1,244	2,334
# of births with medical risk factors:	14,022	674	318	663	175	149	44	69	6,827	472	623	3,045	514	60	174	215
# of medical risk factors reported:[1]	16,232	828	357	793	201	179	53	82	7,753	571	797	3,520	601	70	200	227
Anemia	1,302	93	54	76	20	15	7	6	601	35	91	173	116	2	4	9
Cardiac Disease	174	8	4	7	2	0	2	0	88	11	9	36	5	0	1	1
Acute or Chronic Lung Disease	164	5	3	5	1	0	0	0	90	25	11	13	8	1	1	1
Diabetes	1,343	97	32	52	12	26	0	4	644	23	76	250	59	9	10	44
Genital Herpes	678	9	5	20	5	0	0	3	447	21	8	132	9	1	8	9
Hydramnios/Oligohydramnios	318	14	8	45	4	2	0	3	122	8	21	79	4	0	5	3
Hemoglobinopathy	13	0	0	0	0	0	0	1	9	0	0	1	1	1	0	0
Hypertension, Chronic	430	33	12	40	8	7	3	1	161	17	32	82	19	3	1	11
Hypertension, Pregnancy-Associated	1,852	114	69	123	21	18	5	3	802	30	117	431	56	7	11	45
Eclampsia	400	25	16	10	7	8	1	1	182	12	33	66	19	5	5	10
Incompetent Cervix	89	2	1	2	0	1	0		49	3	4	16	3	1	7	0
Previous Infant 4,000+ Grams	532	31	11	51	17	22	3	2	194	13	38	125	5	5	6	9
PreviousPreterm or Small-For-Gestational Age Infant	545	46	11	50	9	8	3	1	180	18	39	150	16	1	10	3
Renal Disease	96	16	14	6	1	0	0	0	27	10	20	15	1	0	0	0
Rh Sensitization	337	9	0	5	6	0	4	5	165	62	16	9	8	0	28	6
Uterine Bleeding	358	12	6	13	4	3	1	0	171	27	13	82	9	5	10	2
Other	7,601	314	111	288	84	69	18	52	3,821	256	269	1,860	263	29	93	74
OTHER RISK FACTORS:																
Tobacco use during pregnancy	10,214	55	219	169	122	61	16	27	6,616	425	132	1,422	400	8	261	281
Alcohol use during pregnancy	2,625	50	41	60	55	26	6	14	1,713	130	61	285	95	2	46	41
Both	1,293	16	20	30	26	15	3	6	815	65	19	172	55	2	3	19

[1] Will not add to total births since more than one medical risk factor might be reported.

TABLE 7-44

OBSTETRIC PROCEDURES AND METHOD OF DELIVERY BY MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL BIRTHS:	67,128	1,781	1,730	2,040	651	448	104	217	39,179	1,353	1,993	11,257	2,097	700	1,244	2,334
OBSTETRIC PROCEDURES:[1]																
None	9,524	227	158	124	133	33	9	83	5,707	211	279	1,655	327	258	121	189
Amniocentesis	1,931	18	26	68	23	4	0	3	1,262	24	45	361	56	5	20	16
Electronic Fetal Monitoring	44,370	1,414	1,417	1,805	409	341	85	108	24,925	718	1,469	7,361	1,374	132	791	2,021
Induction of Labor	6,932	174	154	302	92	36	8	10	4,044	151	196	1,194	180	33	151	207
Stimulation of Labor	7,132	190	164	239	74	57	19	13	4,356	285	220	1,232	139	26	72	46
Tocolysis	1,440	30	22	60	16	7	2	4	983	34	32	200	30	3	11	6
Ultrasound	39,077	952	772	985	371	354	82	113	25,072	906	915	4,915	1,043	335	986	1,276
Other	6,152	57	17	72	26	8	0	2	4,197	38	150	1,418	83	40	17	27
METHOD OF DELIVERY:[2]																
Vaginal	51,272	1,514	1,388	1,623	518	351	85	108	29,916	1,007	1,628	8,120	1,638	532	941	1,903
Vaginal After Previous Cesarean Section	1,526	91	26	99	18	9	1	2	872	21	82	230	36	2	20	47
Primary Cesarean Section	7,921	100	185	190	70	59	10	15	4,186	158	166	1,465	238	85	167	227
Repeat Cesarean Section	4,557	74	108	110	42	24	7	19	2,709	110	99	794	158	52	106	145
Forceps	2,858	16	81	96	17	9	3	6	1,816	98	58	505	66	18	24	45
Vacuum	2,503	19	106	20	2	26	7	2	1,390	35	22	455	44	29	1	345

1 Will not add to total births since more than one obstetric procedure might be reported.
2 Will not add to total births since more than one method of delivery might be required.

TABLE 7-45

COMPLICATIONS OF LABOR AND/OR DELIVERY BY MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL BIRTHS	67,128	1,781	1,730	2,040	651	448	104	217	39,179	1,353	1,993	11,257	2,097	700	1,244	2,334
# births with complications	23,191	649	482	737	224	156	38	38	13,752	352	727	4,099	864	148	429	563
# complications reported:[1]	29,655	843	629	1,026	291	211	44	50	17,205	450	990	5,423	1,080	197	545	671
Febrile (100 F. or 38 C.)	666	23	5	40	6	3	1	0	285	6	18	251	15	7	3	3
Meconium (Moderate/Heavy)	4,384	139	58	134	33	25	8	8	2,536	83	130	882	154	23	28	143
Premature Rupture of Membrane	2,137	113	67	91	31	12	3	5	1,095	49	111	415	49	3	18	75
Abruption Placenta	398	14	7	27	3	0	1	0	216	13	15	66	17	1	11	7
Other Excessive Bleeding	490	68	6	42	5	8	2	3	190	8	57	77	9	2	3	10
Seizures During Labor	30	1	0	0	1	0	0	0	19	2	1	4	1	0	1	0
Precipitous Labor (<3 Hours)	1,026	41	17	78	18	14	3	2	458	24	95	187	40	3	42	4
Prolonged Labor (>20 Hours)	700	45	58	72	20	5	1	1	248	18	60	120	26	6	15	5
Dysfunctional Labor	1,073	74	77	91	23	21	4	1	358	12	87	282	25	8	10	0
Breech/Malpresentation	2,486	60	73	77	22	29	3	8	1,405	52	75	446	69	26	66	75
Cephalopelvic Disproportion	2,021	24	48	63	14	5	4	3	1,162	36	23	498	50	11	47	33
Cord Prolapse	142	8	3	9	2	0	0	0	78	1	4	23	4	0	6	4
Anesthetic Complications	38	3	2	1	0	0	0	0	25	0	0	3	3	0	1	0
Fetal Distress	2,406	67	80	71	28	15	1	3	1,344	47	113	407	88	32	56	54
Other	11,465	158	120	220	82	74	12	15	7,691	90	191	1,738	522	71	230	251

[1] Will not add to total births since more than one complication might be reported.

TABLE 7-46

ABNORMAL CONDITIONS OF THE NEWBORN BY MOTHER'S COUNTY OF RESIDENCE, ARIZONA, 1989

	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL BIRTHS	67,128	1,781	1,730	2,040	651	448	104	217	39,179	1,353	1,993	11,257	2,097	700	1,244	2,734
# births with abnormal conditions:	4,895	134	93	86	55	23	5	21	2,769	164	179	911	271	25	95	54
# abnormal conditions reported:[1]	5,614	163	111	106	63	26	5	21	3,201	206	226	950	332	27	110	67
Anemia (Hct. <39/Hgb.< 13)	197	8	12	9	8	1	1	0	107	2	5	34	4	0	2	4
Birth Injury	80	2	14	5	3	0	0	0	43	2	2	4	3	0	2	0
Fetal Alcohol Syndrome	26	2	0	3	1	0	0	0	8	0	7	4	1	0	0	0
Hyaline Membrane Disease/Rds.	255	9	6	6	4	3	0	1	125	45	9	36	3	1	3	5
Meconium Aspiration Syndrome	204	10	4	8	4	2	0	0	116	11	11	15	12	3	3	4
Assisted Ventilation <30 Min.	660	15	13	17	12	3	0	1	327	35	33	79	87	1	30	7
Assisted Ventilation ≥30 Min.	438	22	9	14	5	1	0	0	270	12	23	44	7	1	25	5
Seizures	53	1	2	1	1	0	0	0	32	3	3	7	1	1	1	0
Other	3,701	94	51	43	25	16	4	19	2,173	96	133	727	214	20	44	42

[1] Will not add to total births since more than one abnormal condition might be reported.

MATERNAL, PERINATAL AND INFANT MORTALITY STATISTICS

TABLE 8-1

MATERNAL DEATHS[1] BY AGE GROUP AND MATERNAL MORTALITY RATES,[2]
ARIZONA AND UNITED STATES, 1980-1989

Year	Total Number of Deaths	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Arizona Rate	U.S. Rate
1980	4	0	1	1	0	1	1	0	0	8.0	9.2
1981	4	0	1	1	1	0	0	1	0	7.7	9.3
1982	4	0	0	1	1	0	1	1	0	7.6	8.9
1983	3	0	1	1	0	0	1	0	0	5.7	8.0
1984	4	0	0	0	2	1	1	0	0	7.3	7.8
1985	1	0	0	0	0	1	0	0	0	1.7	7.8
1986	1	0	1	0	0	0	0	0	0	1.6	6.7#
1987	1	0	0	0	1	0	0	0	0	1.6	6.3#
1988	4	0	1	2	0	1	0	0	0	6.1	NA
1989	4	0	1	0	2	1	0	0	0	6.0	NA

1 Maternal deaths are those assigned to complications of pregnancy, childbirth and puerperium, category numbers 630-676 of the Ninth Revision, International Classification of Diseases, 1975.

2 Rates per 100,000 live births

\# Preliminary

TABLE 8-2

PERINATAL DEATHS[1] AND PERINATAL MORTALITY RATIOS[2] BY COUNTY OF MOTHER'S RESIDENCE, ARIZONA, 1989

County	PERINATAL MORTALITY II				PERINATAL MORTALITY III			
	Number of infant deaths of less than 28 days	Number of fetal deaths of 20 or more weeks of gestation	Total Perinatal deaths #	Total Perinatal deaths Ratio (II)	Number of infant deaths of less than 7 days	Number of fetal deaths of 20 or more weeks of gestation	Total Perinatal deaths #	Total Perinatal deaths Ratio (III)
ARIZONA	368	296	664	9.9	298	296	594	8.8
Apache	8	6	14	7.9	6	6	12	6.7
Cochise	8	5	13	7.5	6	5	11	6.4
Coconino	7	7	14	6.7	5	7	12	5.9
Gila	2	4	6	9.2	2	4	6	9.2
Graham	5	6	11	24.6	3	6	9	20.1
Greenlee	0	3	3	28.8	0	3	3	28.8
La Paz	0	0	0	-	0	0	0	-
Maricopa	225	165	390	10.0	179	165	344	8.8
Mohave	13	4	17	12.6	12	4	16	11.8
Navajo	18	15	33	16.6	12	15	27	13.5
Pima	45	49	94	8.4	39	49	88	7.8
Pinal	17	9	26	12.4	16	9	25	11.9
Santa Cruz	3	2	5	7.1	3	2	5	7.1
Yavapai	8	7	15	12.1	6	7	13	10.5
Yuma	9	14	23	9.9	9	14	23	9.9

1 Excluded fetal deaths of less than 500 g.

2 All ratios per 1,000 live births. The Perinatal Mortality Ratio I (referring to fetal deaths of 28 or more weeks of gestation) cannot be computed, because information on gestational age is not entered into the database from fetal death certificates in Arizona.

TABLE 8-3

FETAL DEATHS OCCURRING IN ARIZONA BY COUNTY OF OCCURRENCE,[1] ARIZONA, 1980-1989

County	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 ALL	1989 ≥ 500g
ARIZONA	428	394	434	393	371	432	391	433	430	383	304
Apache	6	16	12	14	13	10	13	15	8	7	7
Cochise	10	13	12	7	9	10	8	10	11	7	6
Coconino	16	17	22	25	18	22	12	10	19	12	10
Gila	3	8	3	7	5	2	4	2	3	3	2
Graham	2	3	2	4	3	1	5	3	2	6	6
Greenlee	2	1	2	1	-	-	-	1	0	0	0
La Paz[2]	NA	NA	NA	1	-	-	-	1	0	0	0
Maricopa	229	198	225	190	211	232	225	269	271	225	173
Mohave	5	3	4	8	10	10	11	10	8	7	5
Navajo	5	11	11	10	10	14	6	9	8	10	8
Pima	113	97	115	89	70	91	83	73	72	73	60
Pinal	9	10	6	7	7	4	7	7	6	5	4
Santa Cruz	3	4	1	3	3	-	-	3	1	2	2
Yavapai	8	2	9	7	5	11	6	5	7	7	7
Yuma	17	11	10	20	7	15	11	15	14	19	14

1 Resident and non-resident fetal deaths occurring in Arizona.
2 Included in Yuma County prior to 1983.

TABLE 8-4

FETAL MORTALITY BY COUNTY OF RESIDENCE OF MOTHER,
ARIZONA, SELECTED YEARS, 1950-1989

County of Residence	1950	1960	1970	1975	1980[1]	1985	1986	1987	1988	1989	
										ALL	≥ 500g
ARIZONA	381	463	385	351	428	415	381	422	419	375	296
Apache	13	14	14	9	6	11	15	15	9	7	6
Cochise	8	29	26	19	10	12	10	11	14	5	5
Coconino	13	20	9	12	16	24	7	14	17	9	7
Gila	18	10	12	8	3	3	6	2	4	5	4
Graham	4	5	2	6	2	2	4	2	2	6	6
Greenlee	7	4	3	4	2	2	1	2	3	3	3
La Paz[2]	NA	NA	NA	NA	NA	2	1	2	2	2	0
Maricopa	175	228	200	166	229	217	208	242	247	213	165
Mohave	2	4	4	5	5	8	9	10	7	6	4
Navajo	11	21	9	20	5	20	8	13	15	17	15
Pima	68	77	69	54	113	72	76	68	60	62	49
Pinal	27	28	12	25	9	12	19	13	21	12	9
Santa Cruz	6	4	3	8	3	5	1	4	2	2	2
Yavapai	14	6	8	3	8	12	7	8	6	7	7
Yuma	15	13	14	12	17	13	9	16	10	19	14

[1] Data for 1980 refer to fetal deaths occurring in Arizona by county of occurrence.
[2] Included in Yuma County prior to 1983.

TABLE 8-5

FETAL MORTALITY RATIOS[1] BY COUNTY OF RESIDENCE OF MOTHER, ARIZONA, SELECTED YEARS, 1950-89

County	1950	1960	1970	1975	1980	1985	1986	1987	1988	1989 ALL	1989 ≥ 500g
ARIZONA	18.6	12.6	10.2	8.9	8.5	7.0	6.3	6.7	6.4	5.7	4.5
Apache	17.1	9.5	10.2	6.3	4.9	5.9	8.5	8.1	4.8	3.9	3.9
Cochise	10.5	17.6	19.2	12.6	6.6	7.7	6.6	6.8	8.6	4.0	3.5
Coconino	16.9	13.8	6.4	8.1	7.1	12.3	3.8	7.0	8.7	5.9	4.9
Gila	25.1	13.4	17.3	12.0	5.2	4.7	9.6	3.5	6.1	4.6	3.1
Graham	10.4	15.0	5.4	14.2	5.0	4.9	10.1	4.5	4.8	13.4	13.4
Greenlee	15.9	15.7	12.9	13.5	6.5	12.4	9.4	16.1	27.0	-	-
La Paz[2]	NA	NA	NA	NA	NA	8.5	4.7	10.1	9.4	-	-
Maricopa	19.9	12.8	10.2	8.3	8.2	6.4	5.9	6.6	6.5	5.7	4.4
Mohave	8.7	21.7	8.6	9.2	5.8	8.3	8.5	8.5	5.7	5.2	3.7
Navajo	12.3	14.6	6.1	12.3	4.2	10.6	4.2	6.6	7.7	5.0	4.0
Pima	17.6	10.8	10.2	7.4	11.4	6.7	7.3	6.2	5.4	6.5	5.3
Pinal	19.2	14.4	7.7	14.6	9.8	5.9	9.3	6.1	10.0	2.4	1.9
Santa Cruz	24.0	11.6	10.1	22.2	9.7	9.6	2.0	7.3	3.0	2.9	2.9
Yavapai	28.5	9.5	14.7	4.8	9.5	11.0	6.2	6.8	4.7	5.6	5.6
Yuma	20.5	10.2	10.1	7.5	10.2	6.6	4.6	8.1	4.8	8.1	6.0

1 Number of fetal deaths per 1,000 live births.
2 Included in Yuma County prior to 1983.

TABLE 8-6

FETAL MORTALITY BY COUNTY OF RESIDENCE OF MOTHER, RACE[1] AND SEX OF CHILD, ARIZONA, 1989

	Total Fetal Deaths			White			Non-White			Black			Native American			Other		
	All	Male	Female	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
TOTAL	296	148	148	239	119	120	57	29	28	24	10	14	29	15	14	4	4	0
Ratio[2]	4.4	4.3	4.5	4.2	4.1	4.4	5.4	5.5	5.4	7.8	6.4	9.2	4.6	4.8	4.4	3.7	6.8	-
Apache	6	4	2	2	2	0	4	2	2	0	0	0	4	2	2	0	0	0
Cochise	5	5	0	4	4	0	1	1	0	0	0	0	0	0	0	1	1	0
Coconino	7	3	4	4	2	2	3	1	2	1	0	1	2	1	1	0	0	0
Gila	4	1	3	2	0	2	2	1	1	0	0	0	2	1	1	0	0	0
Graham	6	3	3	6	3	3	0	0	0	0	0	0	0	0	0	0	0	0
Greenlee	3	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0
La Paz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maricopa	165	81	84	142	68	74	23	13	10	12	7	5	9	4	5	2	2	0
Mohave	4	3	1	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0
Navajo	15	9	6	4	2	2	11	7	4	1	0	1	10	7	3	0	0	0
Pima	49	21	28	41	19	22	8	2	6	6	1	5	1	0	1	1	1	0
Pinal	9	5	4	6	4	2	3	1	2	3	1	2	0	0	0	0	0	0
Santa Cruz	2	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Yavapai	7	4	3	7	4	3	0	0	0	0	0	0	0	0	0	0	0	0
Yuma	14	6	8	12	5	7	2	1	1	1	1	0	1	0	1	0	0	0

1 Excluded fetal deaths of less than 500 grams.
2 Number of fetal deaths per 1,000 live births in specified ethnic/gender group.

TABLE 8-7

FETAL MORTALITY[1] BY MOTHER'S AGE GROUP AND COUNTY OF RESIDENCE, ARIZONA, 1989

		AGE GROUP								
	Total	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45+
Arizona	296	0	16	23	75	85	60	31	6	0
Ratio[2]	4.4	-	5.0	3.8	3.8	4.2	4.7	7.3	8.7	-
Apache	6	0	0	0	0	2	2	2	0	0
Cochise	5	0	1	0	1	2	0	1	0	0
Coconino	7	0	0	0	0	5	1	1	0	0
Gila	4	0	0	0	1	1	2	0	0	0
Graham	6	0	0	0	3	0	0	3	0	0
Greenlee	3	0	0	0	2	0	1	0	0	0
La Paz	0	0	0	0	0	0	0	0	0	0
Maricopa	165	0	12	15	46	44	28	17	3	0
Mohave	4	0	0	0	0	3	1	0	0	0
Navajo	15	0	0	1	2	3	4	4	1	0
Pima	49	0	1	3	14	15	13	2	1	0
Pinal	9	0	0	1	2	3	2	1	0	0
Santa Cruz	2	0	0	0	1	1	0	0	0	0
Yavapai	7	0	0	2	1	2	2	0	0	0
Yuma	14	0	2	1	2	4	4	0	1	0

1 Excluded fetal deaths of less than 500 grams.
2 Rates per 1,000 live births in specific group.

TABLE 8-8

INFANT MORTALITY BY COUNTY OF RESIDENCE,
ARIZONA, 1980-89

County of Residence	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA	619	600	491	509	525	572	569	598	634	613
Apache	23	25	21	20	25	22	16	16	10	13
Cochise	19	22	14	20	23	15	8	11	14	12
Coconino	20	20	16	22	16	21	18	15	22	18
Gila	12	5	13	5	3	5	8	3	7	3
Graham	8	14	4	3	7	4	5	4	3	5
Greenlee	5	1	5	-	2	3	1	-	2	-
La Paz[1]	NA	NA	NA	8	1	6	-	1	2	2
Maricopa	358	333	265	266	272	319	340	368	382	362
Mohave	18	8	11	9	8	7	11	10	15	23
Navajo	27	29	18	23	18	26	12	31	21	31
Pima	72	84	76	88	96	94	94	84	104	81
Pinal	17	17	19	17	27	18	27	19	15	23
Santa Cruz	3	5	3	3	4	4	4	7	8	8
Yavapai	11	15	10	11	11	9	13	11	13	12
Yuma	26	22	16	14	12	19	12	18	16	20

[1] Inluded in Yuma County prior to 1983.

TABLE 8-9

INFANT MORTALITY RATES[1] BY AGE AND SELECTED CAUSES,
ARIZONA, UNITED STATES, 1989

Age and Cause of Death	International Classification of Diseases, Ninth Revision	Arizona Number	Arizona Rate	U.S. Rate[2]
Total - Under 1 Year		613	913.2	973.3
Under 28 Days		368	548.2	625.0
28 Days to 364 Days		245	365.0	348.3
Certain Gastrointestinal Diseases	008-009,535,555-558	0	-	5.8
Pneumonia and Influenza	480-487	12	1.9	12.5
Congenital Anomalies	740-759	152	226.4	204.7
Disorders Relating to Short Gestation and Unspecified Low-Birthweight	765	55	81.9	100.1
Birth Trauma	767	4	6.0	4.3
Intrauterine Hypoxia and Birth Asphyxia	768	8	11.9	19.5
Respiratory Distress Syndrome	769	24	35.8	86.6
Other Conditions Originating in the Perinatal Period	760-764,766,770-779	140	208.6	248.0
Sudden Infant Death Syndrome	798.0	111	165.4	126.4
ALL OTHER CAUSES	RESIDUAL	125	186.2	165.6

1 Per 100,000 live births
2 Provisional

TABLE 8-10

INFANT MORTALITY BY COUNTY OF RESIDENCE, CHILD'S ETHNIC GROUP AND GENDER, ARIZONA, 1989

	Total Fetal Deaths			White[1]			Hispanic[2]			Black			Native American			Other		
	All	Male	Female	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
ARIZONA	613	321	292	330	185	145	159	76	83	54	26	28	66	31	35	4	3	1
Apache	13	8	5	2	1	1	1	0	1	1	1	0	9	6	3	0	0	0
Cochise	12	6	6	3	1	2	5	4	1	3	0	3	0	0	0	1	1	0
Coconino	18	7	11	9	4	5	0	0	0	0	0	0	9	3	6	0	0	0
Gila	3	1	2	1	1	0	1	0	1	0	0	0	1	0	1	0	0	0
Graham	5	2	3	2	1	1	1	1	0	0	0	0	2	0	2	0	0	0
Greenlee	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
La Paz	2	1	1	0	0	0	1	0	1	0	0	0	1	1	0	0	0	0
Maricopa	362	200	162	220	129	91	90	44	46	36	20	16	13	5	8	3	2	1
Mohave	23	10	13	20	9	11	1	0	1	2	1	1	0	0	0	0	0	0
Navajo	31	18	13	8	5	3	4	3	1	0	0	0	19	10	9	0	0	0
Pima	81	33	48	37	17	20	31	12	19	7	2	5	6	2	4	0	0	0
Pinal	23	11	12	10	6	4	8	3	5	1	0	1	4	2	2	0	0	0
Santa Cruz	8	4	4	0	0	0	7	3	4	0	0	0	1	1	0	0	0	0
Yavapai	12	10	2	10	8	2	2	2	0	0	0	0	0	0	0	0	0	0
Yuma	20	10	10	8	3	5	7	4	3	4	2	2	1	1	0	0	0	0

[1] Non-Hispanic.
[2] White of Hispanic origin.

TABLE 8-11

INFANT MORTALITY RATES[1] BY COUNTY OF RESIDENCE, CHILD'S ETHNIC GROUP AND GENDER, ARIZONA, 1989

County of Residence	All Infant Deaths			White[2]			Hispanic[3]			Black			Native American			Other		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
ARIZONA	9.1	9.3	8.9	9.0	9.8	8.1	8.0	7.4	8.6	17.5	16.6	18.5	10.5	9.9	11.1	3.7	5.1	2.1
Apache	7.3	9.1	5.6	10.2	10.3	10.0	14.3	-	30.3	*	*	*	6.0	8.0	3.9	-	-	-
Cochise	6.9	6.8	7.0	3.9	2.5	5.4	7.0	11.4	2.7	21.0	-	41.1	-	-	-	10.5	18.5	-
Coconino	8.8	6.6	11.2	11.6	10.2	13.0	-	-	-	-	-	-	9.1	5.9	12.6	-	-	-
Gila	4.6	3.0	6.2	3.6	7.0	-	6.6	-	13.3	-	-	-	4.6	-	9.2	-	-	
Graham	11.2	8.9	13.5	9.9	9.0	10.9	6.3	14.5	-	-	-	-	27.4	-	58.8	-	-	-
Greenlee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
La Paz	9.2	8.4	10.2	-	-	-	11.5	-	32.3	-	-	-	20.4	50.0	-	-	-	-
Maricopa	9.2	9.9	8.5	9.0	10.3	7.6	8.4	8.0	8.9	16.8	18.3	15.3	10.9	8.7	13.1	4.4	5.5	3.1
Mohave	17.0	14.0	20.3	17.4	14.7	20.6	7.9	-	15.4	*	*	*	-	-	-	-	-	-
Navajo	15.6	17.5	13.5	15.5	18.8	12.0	32.3	40.5	20.0	-	-	-	14.3	14.8	13.8	-	-	-
Pima	7.2	5.7	8.8	6.7	5.9	7.5	6.9	5.2	8.7	13.5	7.7	19.2	12.0	7.6	16.6	-	-	-
Pinal	11.0	10.2	11.8	11.2	12.7	9.5	9.9	7.2	12.8	11.0	-	20.8	13.4	13.9	12.9	-	-	-
Santa Cruz	11.4	11.4	11.5	-	-	-	10.9	9.6	12.2	-	-	-	*	*	*	-	-	-
Yavapai	9.6	16.0	3.2	9.7	15.2	4.0	12.0	26.7	-	-	-	-	-	-	-	-	-	-
Yuma	8.6	8.2	9.0	10.1	7.4	12.8	5.1	5.4	4.7	44.0	42.3	45.5	25.0	55.6	-	-	-	-

1 Rate per 1,000 live births in specific group, and calculated only if at least ten births recorded in that group in 1989.
2 Includes only whites of Non-Hispanic origin.
3 White of Hispanic origin.
- No infants deaths recorded in 1989.
* Less than ten births recorded in that group in 1989.

TABLE 8-12

NEONATAL MORTALITY BY COUNTY OF RESIDENCE,
ARIZONA, 1980-89

County	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA	414	381	305	314	305	348	331	376	384	368
Apache	9	12	6	11	9	12	9	5	5	8
Cochise	13	15	10	15	13	8	5	10	7	8
Coconino	11	11	10	13	5	9	6	7	14	7
Gila	8	2	8	2	1	3	5	3	5	2
Graham	4	10	2	2	4	2	3	1	2	5
Greenlee	2	0	5	0	2	2	1	0	2	0
La Paz[1]	NA	NA	NA	3	1	4	0	1	2	0
Maricopa	260	230	174	167	170	197	204	236	244	225
Mohave	10	4	5	4	6	2	4	6	5	13
Navajo	15	15	8	9	8	13	4	17	7	18
Pima	48	53	47	56	62	68	66	54	65	45
Pinal	14	8	8	15	11	7	12	12	9	17
Santa Cruz	3	2	2	2	2	4	3	6	3	3
Yavapai	4	5	6	7	5	6	5	7	8	8
Yuma	13	14	14	8	6	11	4	11	6	9

[1] Included in Yuma County prior to 1983.

TABLE 8-13

NEONATAL MORTALITY RATES[1] BY COUNTY OF RESIDENCE,
ARIZONA, UNITED STATES, 1980-89

County	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
U.S.	8.4	7.9	7.7	7.3	6.9	6.9	6.7	6.5[2]	6.4[2]	6.2[2]
ARIZONA	8.3	7.4	5.8	5.9	5.5	5.9	5.4	5.9	5.9	5.5
Apache	5.5	7.1	3.3	6.2	5.0	6.5	5.1	2.7	2.6	4.5
Cochise	8.2	9.1	6.4	9.6	8.0	5.1	3.3	6.2	4.3	4.6
Coconino	6.0	6.3	5.7	7.2	2.8	4.6	3.3	3.5	7.1	3.4
Gila	11.3	2.6	9.9	2.9	1.5	4.7	8.0	5.3	7.6	3.1
Graham	7.8	19.6	4.3	4.6	9.0	4.9	7.6	2.3	4.8	11.2
Greenlee	7.3	-	19.5	-	10.3	12.4	9.4	-	18.0	-
La Paz[3]	NA	NA	NA	12.7	5.1	17.1	-	5.1	9.3	-
Maricopa	9.7	8.3	6.1	5.8	5.5	5.8	5.8	6.4	6.4	5.7
Mohave	11.5	4.5	5.6	4.3	6.1	2.1	3.8	5.1	4.1	9.6
Navajo	7.9	8.3	4.2	4.7	4.3	6.9	2.1	8.6	3.6	9.0
Pima	5.4	5.8	5.1	5.8	6.4	6.6	6.3	4.9	5.8	4.0
Pinal	7.6	4.2	4.1	8.0	5.9	3.4	5.8	5.6	4.3	8.1
Santa Cruz	6.0	3.9	4.1	4.4	3.9	7.6	5.9	11.0	4.5	4.3
Yavapai	4.3	5.0	5.6	6.8	5.0	5.5	4.4	6.0	6.2	6.4
Yuma	7.3	7.2	7.4	4.8	3.4	5.6	2.0	5.6	2.9	3.9

1 Per 1,000 live births.
2 Preliminary.
3 Included in Yuma County prior to 1983.

TABLE 8-14

POSTNEONATAL MORTALITY BY COUNTY OF RESIDENCE,
ARIZONA, 1980-89

County	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA	205	219	186	195	220	224	238	222	250	245
Apache	14	13	15	9	16	10	7	11	5	5
Cochise	6	7	4	5	10	7	3	1	7	4
Coconino	9	9	6	9	11	12	12	8	8	11
Gila	4	3	5	3	2	2	3	0	2	1
Graham	4	4	2	1	3	2	2	3	1	0
Greenlee	3	1	0	0	0	1	0	0	0	0
La Paz[1]	NA	NA	NA	5	0	2	0	0	0	2
Maricopa	98	103	91	99	102	122	136	132	138	137
Mohave	8	4	6	5	2	5	7	4	10	10
Navajo	12	14	10	14	10	13	8	14	14	13
Pima	24	31	29	32	34	26	28	30	39	36
Pinal	3	9	11	2	16	11	15	7	6	6
Santa Cruz	0	3	1	1	2	0	1	1	5	5
Yavapai	7	10	4	4	6	3	8	4	5	4
Yuma	13	8	2	6	6	8	8	7	10	11

[1] Included in Yuma County prior to 1983.

TABLE 8-15

POSTNEONATAL MORTALITY RATES[1] BY COUNTY OF RESIDENCE, ARIZONA, UNITED STATES, 1980-89

County	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
U.S.	4.2	4.0	3.8	3.9	3.9	3.7	3.7	3.5[2]	3.5[2]	3.6[2]
ARIZONA	4.1	4.2	3.5	3.7	4.0	3.8	4.0	3.5	3.8	3.6
Apache	8.6	7.7	8.1	5.0	8.8	5.4	4.0	5.9	5.2	4.9
Cochise	3.8	4.3	2.6	3.2	6.2	4.5	1.9	0.6	3.5	5.9
Coconino	4.9	5.2	3.4	5.0	6.1	6.2	6.5	4.0	5.2	3.4
Gila	5.7	3.9	6.2	4.4	3.0	3.1	4.8	-	3.2	3.7
Graham	7.8	7.9	4.3	5.4	6.7	4.9	5.1	6.7	4.7	4.9
Greenlee	11.0	3.3	-	-	-	6.2	-	-	1.2	2.8
La Paz[3]	NA	NA	NA	21.2	-	8.5	-	-	5.4	6.0
Maricopa	3.7	3.7	3.2	3.4	3.3	3.6	3.8	3.6	3.6	3.6
Mohave	9.2	4.5	6.8	1.1	2.0	5.2	6.5	3.4	5.2	5.6
Navajo	6.3	7.7	5.3	7.3	5.4	6.9	4.2	7.1	6.4	6.4
Pima	2.7	3.4	3.2	3.3	3.5	2.5	2.7	2.8	3.0	3.0
Pinal	1.6	4.7	5.7	1.1	8.7	5.4	7.3	3.3	4.7	4.3
Santa Cruz	-	5.8	2.0	2.2	3.9	-	2.0	1.8	3.2	3.5
Yavapai	7.5	10.0	3.7	3.9	6.0	2.8	7.1	3.4	4.4	5.0
Yuma	7.3	4.1	1.1	3.6	3.4	4.1	4.1	3.5	4.0	4.1

1 Per 1,000 live births.
2 Preliminary.
3 Included in Yuma County prior to 1983.

TABLE 8-16

NEONATAL, POSTNEONATAL AND TOTAL INFANT MORTALITY BY CHILD'S GENDER AND ETHNIC GROUP, ARIZONA, 1989

Ethnic Group/Gender	Number of Deaths			Mortality Rates[1]		
	Neonatal	Post-Neonatal	Total Infant	Neonatal	Post-Neonatal	Total Infant
White, total[2]	205	125	330	5.6	3.4	9.0
Male	107	78	185	5.7	4.1	9.8
Female	98	47	145	5.5	2.6	8.1
Hispanic, total[3]	100	59	159	5.0	3.0	8.0
Male	46	30	76	4.5	2.9	7.4
Female	54	29	83	5.6	3.0	8.6
Black, total	28	26	54	9.1	8.4	17.5
Male	15	11	26	9.6	7.0	16.6
Female	13	15	28	8.6	9.9	18.5
Native American, total	32	34	66	5.1	5.4	10.5
Male	15	17	31	4.8	5.1	9.9
Female	17	18	35	5.4	5.7	11.1
Other Race, total	3	1	4	2.8	0.9	3.7
Male	2	1	3	3.4	1.7	5.1
Female	1	0	1	2.1	-	2.1
All Ethnic Groups, total	368	245	613	5.5	3.6	9.1
Male	185	136	321	5.4	3.9	9.3
Female	183	109	292	5.6	3.3	8.9

1 Number of deaths per 1,000 live births in specified ethnic/gender group. Denominators are from Table 7-11.
2 Non-Hispanic.
3 White of Hispanic origin.

DEATH STATISTICS

TABLE 9-1

MORTALITY BY COUNTY OF RESIDENCE,
ARIZONA, SELECTED YEARS, 1950-1989

County	1950	1960	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA	6,317	10,067	14,857	21,226	21,318	21,951	22,482	23,785	24,577	25,409	26,670	27,511	27,838
Apache	255	266	266	302	302	317	294	306	330	335	343	329	344
Cochise	322	428	511	631	628	644	712	664	687	662	764	748	748
Coconino	161	267	288	309	308	339	320	341	379	383	392	404	386
Gila	245	253	282	330	337	417	385	396	381	399	408	413	426
Graham	112	123	149	171	184	164	184	175	169	189	193	197	216
Greenlee	87	71	77	86	52	73	61	66	47	50	67	64	49
La Paz[1]	NA	NA	NA	NA	NA	NA	140	154	136	128	151	157	144
Maricopa	2,735	5,011	7,895	11,769	11,923	12,214	12,433	13,398	13,661	14,106	14,746	15,217	15,495
Mohave	90	97	238	549	548	612	593	607	753	795	877	972	995
Navajo	300	273	341	415	415	400	406	428	460	484	462	471	506
Pima	1,051	2,058	3,062	4,311	4,253	4,279	4,506	4,734	4,865	5,090	5,295	5,362	5,324
Pinal	401	474	548	731	745	741	782	814	785	942	922	1,019	1,066
Santa Cruz	63	78	90	121	125	135	131	150	148	147	159	193	172
Yavapai	267	348	555	801	813	878	961	964	1,057	1,032	1,213	1,217	1,254
Yuma	228	320	555	700	685	738	574	588	719	667	678	748	713

[1] Included in Yuma County prior to 1983.

TABLE 9-2

MORTALITY BY COUNTY OF OCCURRENCE,[1]
ARIZONA, SELECTED YEARS, 1950-1989

County	1950	1960	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ARIZONA	6,822	10,557	15,259	22,054	21,925	22,655	23,205	24,598	25,382	26,404	27,628	28,449	28,964
Apache	308	315	184	240	199	231	212	202	250	254	250	225	243
Cochise	315	387	474	499	483	519	589	556	566	551	589	575	602
Coconino	183	322	304	382	363	392	391	439	469	493	496	479	484
Gila	240	233	276	284	303	355	304	308	299	312	329	317	358
Graham	102	102	132	132	133	117	154	144	141	139	150	162	175
Greenlee	76	71	63	61	40	59	38	42	19	27	2	27	19
La Paz	NA	NA	NA	NA	NA	NA	118	120	120	132	133	127	133
Maricopa	2,958	5,318	8,275	12,671	12,730	13,169	13,450	14,614	14,791	15,345	15,975	16,621	16,891
Mohave	95	110	218	447	440	474	495	568	642	764	832	877	1,005
Navajo	266	224	291	303	325	294	290	298	306	382	369	357	337
Pima	1,251	2,193	3,355	4,960	4,826	4,847	5,060	5,234	5,413	5,596	5,873	5,959	5,950
Pinal	418	453	443	484	462	467	485	437	496	573	590	644	641
Santa Cruz	67	83	92	81	87	99	99	111	110	114	112	142	129
Yavapai	308	429	613	786	787	833	870	874	978	977	1,122	1,088	1,168
Yuma	235	317	539	724	747	799	650	651	782	745	779	849	829

[1] Resident and non-resident deaths occurring in Arizona.

TABLE 9-3

RESIDENT DEATHS BY PLACE OF OCCURRENCE AND NON-RESIDENT DEATHS
OCCURRING IN ARIZONA BY COUNTY OF OCCURRENCE, ARIZONA, 1989

Place of Residence	PLACE OF DEATHS: Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma	Arizona Total[1]	Other State[2]	Arizona Residents, Total[3]
Apache	193	0	3	1	0	0	0	14	0	11	6	0	0	0	0	228	116	344
Cochise	0	552	1	0	2	0	0	15	1	0	165	1	1	0	0	738	10	748
Coconino	1	0	292	0	0	0	1	34	4	5	8	0	0	22	0	367	19	386
Gila	0	0	2	304	0	0	0	97	0	3	13	3	0	1	0	423	3	426
Graham	0	3	0	14	146	0	0	21	1	0	29	0	0	0	0	214	2	216
Greenlee	1	0	0	0	15	15	0	3	0	0	12	0	0	0	0	46	3	49
La Paz	0	0	0	0	0	0	79	28	16	1	1	0	0	1	6	132	12	144
Maricopa	2	4	35	16	5	0	3	15,033	18	14	44	34	1	33	5	15,247	248	15,495
Mohave	0	0	7	0	0	1	5	71	818	1	4	0	0	20	4	931	64	995
Navajo	25	1	44	3	0	0	0	104	0	275	20	3	0	0	0	475	31	506
Pima	0	9	2	1	2	0	1	44	0	6	5,153	12	7	3	2	5,242	82	5,324
Pinal	0	0	4	14	1	0	0	394	1	1	91	544	0	0	1	1,051	15	1,066
Santa Cruz	0	3	0	0	0	0	0	3	0	0	58	0	105	0	1	170	2	172
Yavapai	0	0	12	0	0	0	0	143	3	2	18	0	1	1,054	0	1,233	21	1,254
Yuma	0	0	1	0	0	0	1	23	1	0	24	1	0	2	631	684	29	713
Arizona Residents, total[4]	222	572	403	353	171	16	90	16,027	863	319	5,646	598	119	1,136	650	27,181	657	27,838
Residents of other states[5]	21	30	81	5	4	3	43	864	142	18	304	43	14	32	179	1,783		
Total Deaths:[6]	243	602	484	358	175	19	133	16,891	1,005	337	5,950	641	129	1,168	829	28,964		

1 Number of deaths to residents of specified county occurring in the state.
2 Number of deaths to residents of specified county occurring out-of-state.
3 Total number of deaths to residents of specified county.
4 Number of deaths occurring in specified county to residents of the state.
5 Number of deaths occurring in specified county to out-of-state residents.
6 Total number of deaths occurring in specified county to Arizona residents and non-residents.

TABLE 9-4

RESIDENT MORTALITY BY MONTH OF OCCURRENCE,
ARIZONA, 1980-89

	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
1980	1,904	1,649	1,835	1,729	1,686	1,663	1,726	1,651	1,646	1,659	1,779	2,299	21,226
Percent	9.0	7.8	8.6	8.1	7.9	7.8	8.1	7.8	7.8	7.8	8.4	10.8	100.0
1981	2,098	1,666	1,856	1,828	1,742	1,642	1,774	1,715	1,612	1,747	1,765	1,873	21,318
Percent	9.8	7.8	8.7	8.6	8.2	7.7	8.3	8.0	7.6	8.2	8.3	8.8	100.0
1982	2,013	1,013	1,948	1,790	1,762	1,687	1,734	1,781	1,727	1,815	1,723	1,958	21,951
Percent	9.2	9.2	8.9	8.2	8.0	7.7	7.9	8.1	7.9	8.3	7.8	8.9	100.0
1983	1,982	1,902	1,979	1,968	1,924	1,677	1,805	1,803	1,765	1,822	1,847	2,008	22,482
Percent	8.8	8.5	8.8	8.8	8.6	7.5	8.0	8.0	7.9	8.1	8.2	8.9	100.0
1984	2,014	1,978	2,244	2,108	2,036	1,865	1,833	1,852	1,737	1,935	2,011	2,172	23,785
Percent	8.5	8.3	9.4	8.9	8.6	7.8	7.7	7.8	7.3	8.1	8.5	9.1	100.0
1985	2,314	2,201	2,110	1,966	2,017	1,956	1,952	1,874	1,919	1,958	2,042	2,268	24,577
Percent	9.4	9.0	8.6	8.0	8.2	8.0	7.9	7.6	7.8	8.0	8.3	9.2	100.0
1986	2,412	2,163	2,283	2,068	2,053	2,061	2,015	2,112	1,942	2,090	1,996	2,214	25,409
Percent	9.5	8.5	9.0	8.1	8.1	8.1	7.9	8.3	7.6	8.2	7.9	8.7	100.0
1987	2,482	2,212	2,363	2,238	2,176	2,120	2,149	2,120	1,996	2,122	2,218	2,475	26,670
Percent	9.3	8.3	8.7	8.4	8.2	7.9	8.1	7.9	7.5	8.0	8.3	9.3	100.0
1988	2,641	2,497	2,457	2,230	2,234	2,173	2,169	2,143	2,040	2,161	2,258	2,508	27,511
Percent	9.6	9.1	8.9	8.1	8.1	7.9	7.9	7.8	7.4	7.9	8.2	9.1	100.0
1989	2,789	2,443	2,543	2,260	2,264	2,071	2,191	2,069	2,123	2,212	2,301	2,572	27,838
Percent	10.0	8.8	9.1	8.1	8.1	7.4	7.9	7.4	7.6	7.9	8.3	9.2	100.0

TABLE 9-5

DEATHS BY MONTH AND DAY OF OCCURRENCE,
ARIZONA RESIDENTS, 1989

Day of Month	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
01	85	79	80	75	67	59	70	53	69	76	71	59
02	97	101	86	76	73	82	78	63	68	72	78	72
03	79	86	81	77	77	68	72	76	68	84	82	76
04	83	87	95	87	61	69	71	70	69	84	76	82
05	99	77	85	70	71	71	84	54	63	82	77	72
06	97	78	74	74	75	78	63	59	68	81	72	74
07	99	94	88	66	86	70	62	63	76	83	74	76
08	91	90	75	73	91	78	64	66	78	82	86	51
09	83	96	82	86	58	63	62	66	75	53	60	95
10	97	91	90	86	78	86	72	65	74	60	82	61
11	104	101	85	67	82	65	74	65	81	72	81	81
12	80	94	89	70	67	67	62	87	77	64	56	89
13	81	104	76	66	71	66	73	67	70	76	87	81
14	112	87	72	66	77	56	81	64	66	76	88	87
15	103	88	80	68	74	62	82	70	75	59	67	80
16	89	85	82	80	64	80	68	83	82	74	76	89
17	103	87	75	70	68	60	78	69	61	66	79	102
18	83	81	88	89	87	68	65	69	64	73	75	77
19	78	95	82	72	66	66	73	71	57	75	75	95
20	92	86	78	70	83	69	72	55	66	75	69	101
21	80	80	72	77	61	78	80	67	78	71	82	82
22	89	80	79	77	81	52	80	45	67	57	75	75
23	84	74	85	84	85	71	63	64	74	53	71	112
24	75	93	73	73	87	72	55	70	77	69	72	88
25	79	85	80	71	77	67	68	63	65	72	66	84
26	86	77	82	89	70	62	74	70	80	72	81	89
27	90	80	89	72	72	68	69	80	66	59	67	105
28	88	87	96	75	52	75	70	68	68	85	105	91
29	97		79	73	56	65	64	71	79	65	80	81
30	94		92	81	72	78	78	78	62	70	91	89
31	92		73		75		64	58		72		76
Total	2,789	2,443	2,543	2,260	2,264	2,071	2,191	2,069	2,123	2,212	2,301	2,572

TABLE 9-6

MORTALITY BY FIVE-YEAR AGE GROUPS AND COUNTY OF RESIDENCE, ARIZONA, 1980 AND 1989

County/ Year	All Ages	Under 1 Day	1-6 Days	7-27 Days	28 & Over	Total Infant	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Unknown
ARIZONA																									
1980	21,226	182	139	94	204	619	134	70	69	289	380	376	330	331	351	559	865	1,389	1,859	2,452	2,952	2,760	2,426	2,990	25
1989	27,838	207	91	70	245	613	151	74	72	261	345	376	449	490	609	656	827	1,315	2,063	3,018	3,704	4,097	3,737	4,960	21
Apache																									
1980	302	6	2	2	13	23	4	2	2	17	13	18	9	6	11	15	12	14	11	24	33	22	22	43	1
1989	344	3	3	2	5	13	6	1	4	11	16	13	8	11	23	17	11	16	24	20	28	37	38	47	0
Cochise																									
1980	631	9	3	1	6	19	4	6	0	7	12	13	13	12	19	14	26	45	58	67	84	75	60	95	2
1989	748	5	1	2	4	12	2	3	2	10	11	4	11	9	11	16	27	43	57	83	118	114	100	115	0
Coconino																									
1980	309	2	5	4	9	20	3	4	0	7	11	11	12	10	11	13	19	15	27	27	29	26	26	38	0
1989	386	4	1	2	11	18	6	1	3	4	8	10	14	18	22	14	22	20	23	27	41	45	46	42	2
Gila																									
1980	330	2	2	0	4	12	2	2	2	7	3	9	5	6	7	7	11	16	30	44	48	41	21	56	1
1989	426	1	1	0	1	3	0	2	1	4	4	3	5	8	8	5	13	18	38	71	64	61	52	66	0
Graham																									
1980	171	3	1	0	4	8	5	1	0	2	3	3	3	2	3	6	6	12	14	12	22	29	18	22	0
1989	216	1	2	2	0	5	1	0	4	5	0	1	5	4	2	7	4	8	18	9	31	28	36	48	0
Greenlee																									
1980	86	1	1	0	3	5	1	1	1	3	3	1	2	1	3	3	2	4	9	10	13	7	5	12	0
1989	49	0	0	0	0	0	0	0	0	0	1	1	2	0	1	1	3	2	1	6	10	10	4	7	0
La Paz*																									
1980	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	144	0	0	0	2	2	1	1	0	4	1	0	1	2	1	2	3	15	13	15	24	32	9	17	1
Maricopa																									
1980	11,769	107	92	61	98	358	71	30	38	143	214	183	156	196	182	288	498	775	1,009	1,316	1,625	1,588	1,404	1,688	7
1989	15,495	131	48	46	137	362	80	40	39	122	203	219	246	282	325	374	448	695	1,098	1,606	1,997	2,314	2,137	2,902	6
Mohave																									
1980	549	5	1	4	8	18	1	4	1	5	6	8	10	3	1	13	25	48	62	75	96	67	42	64	0
1989	995	9	3	1	10	23	7	0	0	10	7	9	6	8	27	23	30	54	93	149	165	143	116	131	4
Navajo																									
1980	415	6	3	6	12	27	4	4	4	16	11	19	6	8	19	22	19	27	37	35	43	35	32	47	0
1989	506	6	6	6	13	31	7	5	2	17	13	18	19	15	16	17	21	29	35	48	50	59	42	62	0
Pima																									
1980	4,311	22	19	7	24	72	22	11	13	48	66	84	72	62	58	114	154	264	393	529	607	555	556	629	2
1989	5,324	28	11	6	36	81	19	12	12	46	50	66	78	86	97	114	163	235	390	594	698	766	755	1,060	2
Pinal																									
1980	731	9	5	0	3	17	7	2	2	12	15	10	21	8	17	25	38	51	63	86	113	99	62	79	4
1989	1,066	10	6	1	6	23	11	4	3	9	17	15	31	18	33	27	39	68	105	107	153	154	122	126	1
Santa Cruz																									
1980	121	1	0	2	0	3	1	0	0	1	0	2	0	2	4	2	5	11	11	19	13	12	12	23	1
1989	172	1	2	0	5	8	3	0	0	3	3	1	2	0	2	4	4	6	13	18	26	22	25	32	0
Yavapai																									
1980	801	4	0	0	7	11	3	3	2	11	11	6	6	6	8	15	23	51	70	115	123	118	100	119	0
1989	1,254	4	2	2	4	12	5	2	0	5	5	6	12	19	27	13	22	60	93	166	200	206	172	329	0
Yuma																									
1980	700	5	3	5	13	26	6	0	4	10	12	9	15	9	8	22	27	56	65	93	103	86	66	75	8
1989	713	4	5	0	11	20	3	3	2	11	6	10	9	10	14	22	17	46	62	99	99	106	83	86	5

* Included in Yuma County prior to 1983.

TABLE 9-7

NUMBER OF DEATHS BY ETHNIC GROUP, GENDER AND YEAR,
ARIZONA RESIDENTS, 1980-1989

Ethnicity/Gender	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WHITE,[1] total:	17,833	17,931	18,561	19,069	20,081	20,893	21,654	22,653	23,151	23,502
Female	10,250	10,307	10,529	10,681	11,256	11,638	12,031	12,562	12,779	12,753
Male	7,583	7,624	8,032	8,388	8,825	9,255	9,623	10,091	10,372	10,749
HISPANIC,[2] total	1,798	1,804	1,750	1,794	1,965	2,002	1,962	2,193	2,400	2,331
Male	1,077	1,096	978	1,078	1,168	1,207	1,142	1,260	1,406	1,344
Female	721	708	772	716	797	795	820	933	994	987
BLACK,total	557	576	555	630	633	559	599	627	723	760
Male	332	368	350	382	360	331	366	369	417	436
Female	219	208	205	248	273	228	233	258	306	324
NATIVE AMERICAN, total	988	936	1,000	915	1,003	1,021	1,092	1,088	1,127	1,140
Male	620	598	621	574	640	625	665	671	680	680
Female	368	337	379	341	363	396	427	417	447	460
OTHER RACE, total	56	71	85	74	103	102	102	109	110	105
Male	34	39	50	46	59	52	63	67	71	68
Female	22	32	35	28	44	50	39	42	39	37
All Ethnic Groups, total	21,226	21,318	21,591	22,482	23,785	24,577	25,409	26,670	27,511	27,838
Male	12,313	12,408	12,527	12,761	13,483	13,853	14,267	14,929	15,353	15,281
Female	8,913	8,909	9,422	9,717	10,302	10,724	11,142	11,74	12,158	12,557

[1] Non-Hispanic.
[2] White of Hispanic origin.

TABLE 9-8

NUMBER OF DEATHS BY ETHNIC GROUP, GENDER AND COUNTY OF RESIDENCE, ARIZONA, 1989

County of Residence	Total All Ethnic Groups:			White[1]			Hispanic[2]			Native American			Black			ALL Other		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
ARIZONA	27,838	15,281	12,557	23,502	12,753	10,749	2,331	1,344	987	1,140	680	460	760	436	324	105	68	37
Apache	344	215	129	66	40	26	10	6	4	266	168	98	2	1	1	0	0	0
Cochise	748	409	339	587	329	258	139	73	66	1	1	0	16	5	11	5	1	4
Coconino	386	226	160	214	121	93	32	19	13	123	78	45	16	7	9	1	1	0
Gila	426	247	179	346	201	145	42	21	21	35	23	12	1	1	0	2	1	1
Graham	216	121	95	149	79	70	38	24	14	26	16	10	3	2	1	0	0	0
Greenlee	49	30	19	23	14	9	26	16	10	0	0	0	0	0	0	0	0	0
La Paz	144	105	39	114	85	29	10	6	4	19	13	6	1	1	0	0	0	0
Maricopa	15,495	8,346	7,149	13,729	7,283	6,446	1,037	634	403	164	93	71	507	300	207	58	36	22
Mohave	995	591	404	952	565	387	17	9	8	18	11	7	4	3	1	4	3	1
Navajo	506	291	215	247	137	110	29	14	15	225	139	86	5	1	4	0	0	0
Pima	5,324	2,812	2,512	4,444	2,341	2,103	553	294	259	154	77	77	145	80	65	28	20	8
Pinal	1,066	642	424	787	486	301	149	86	63	97	52	45	31	16	15	2	2	0
Santa Cruz	172	79	93	68	31	37	101	45	56	1	1	0	1	1	0	1	1	0
Yavapai	1,254	723	531	1,211	700	511	36	21	15	4	1	3	3	1	2	0	0	0
Yuma	713	444	269	565	341	224	112	76	36	7	7	0	25	17	8	4	3	1

1 Non-Hispanic.
2 White of Hispanic origin.

TABLE 9-9

DEATHS AND DEATH RATES[1] FOR SELECTED 75 CAUSES, ARIZONA AND UNITED STATES, 1989

Cause of death (Ninth Revision, International Classification of Diseases, 1975)	ARIZONA # of deaths	ARIZONA Rate	U.S. Rate
All Causes	27,838	747.7	868.1
Shigellosis and amebiasis 004,006	1	0.0	0.0
Certain other intestinal infections 007-009	1	0.0	0.2
Tuberculosis 010-018	21	0.6	0.7
Tuberculosis of respiratory system 010-012	20	0.5	0.6
Other tuberculosis 013-018	1	0.0	0.2
Whooping cough 033	-	-	0.0
Streptococcal sore throat, scarlatina, and erysipelas 034-035	-	-	-
Meningococcal infection 036	2	0.0	0.2
Septicemia 038	204	5.5	7.7
Human immunodeficiency virus (HIV) infection[2] 042*-044*	199	5.3	8.6
Acute poliomyelitis 045	1	0.0	0.0
Measles 055	-	-	0.0
Viral hepatitis 070	20	0.5	0.6
Syphilis 090-097	3	0.1	0.0
All other infectious and parasitic diseases 001-003,005,020-032,037,039-041 ,046-054,056-066,071-088,098-139	124	3.3	2.9
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues 140-208	6,351	170.6	200.3
Malignant neoplasms of lip, oral cavity, and pharynx 140-149	97	2.6	3.3
Malignant neoplasms of digestive organs and peritoneum 150-159	1,505	40.4	48.0
Malignant neoplasms of respiratory and intrathoracic organs 160-165	1,794	48.2	57.0
Malignant neoplasm of breast 174-175	519	13.9	17.6
Malignant neoplasms of genital organs 179-187	657	17.7	21.6
Malignant neoplasms of urinary organs 188-189	274	7.4	8.1
Malignant neoplasms of all other and unspecified sites 170-173,190-199	887	23.8	25.2
Leukemia 204-208	237	6.4	7.6
Other malignant neoplasms of lymphatic and hematopoietic tissues 200-203	381	10.2	11.9
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature 210-239	94	2.5	2.9
Diabetes mellitus 250	610	16.4	18.8
Nutritional deficiencies 260-269	137	3.7	1.2
Anemias 280-285	45	1.2	1.6
Meningitis 320-322	11	0.3	0.4
Alzheimer's disease 331.0	205	5.5	NA
Parkinson's disease 332	104	2.8	NA
Multiple sclerosis 340	24	0.6	NA
Major cardiovascular diseases 390-448	10,950	294.1	376.4
Diseases of heart 390-398,402,404-429	8,652	232.4	296.3
Rheumatic fever and rheumatic heart disease 390-398	74	2.0	2.4
Hypertensive heart disease 402	107	2.9	8.5
Hypertensive heart and renal disease 404	10	0.3	0.9
Ischemic heart disease 410-414	6,276	168.6	200.6
Acute myocardial infarction 410	2,504	67.3	99.5
Other acute and subacute forms of ischemic heart disease 411	217	5.8	1.3
Angina pectoris 413	13	0.4	0.4
Old myocardial infarction and other forms of chronic ischemic heart disease 412,414	3,542	95.1	99.3

Other diseases of endocardium....424	186	5.0	4.7
All other forms of heart disease....415-423,425-429	1,999	53.7	79.2
Hypertension with or without renal disease....401,403	100	2.7	3.4
Cerebrovascular diseases....430-438	1,617	43.4	59.4
Intracerebral and other intracranial hemorrhage....431-432	253	6.8	8.5
Cerebral thrombosis and unspecified occlusion of cerebral arteries....434.0,434.9	167	4.5	8.0
All other and late effects of cerebrovascular diseases....430,433,435-438	1,191	32.0	43.6
Atherosclerosis....440	248	6.7	9.6
Other diseases of arteries, arterioles, and capillaries....441-448	333	8.9	9.2
Acute bronchitis and bronchiolitis....466	8	0.2	0.3
Pneumonia and influenza....480-487	1,079	29.0	31.5
Pneumonia....480-486	1,060	28.5	30.7
Influenza....487	19	0.5	0.8
Chronic obstructive pulmonary diseases and allied conditions....490-496	1,563	42.0	33.3
Bronchitis, chronic and unspecified....490-491	44	1.2	1.4
Emphysema....492	385	10.3	6.4
Asthma....493	109	2.9	1.9
Other chronic obstructive pulmonary diseases and allied conditions....494-496	1,025	27.5	23.7
Ulcer of stomach and duodenum....531-533	83	2.2	2.6
Appendicitis....540-543	2	0.0	0.2
Hernia of abdominal cavity and intestinal obstruction without mention of hernia....550-553,560	69	1.9	2.1
Chronic liver disease and cirrhosis....571	438	11.8	10.6
Cholelithiasis and other disorders of gallbladder....574-575	28	0.8	1.3
Nephritis, nephrotic syndrome, and nephrosis....580-589	263	7.1	8.9
Acute glomerulonephritis and nephrotic syndrome....580-581	-	-	0.1
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified....582-583,587	9	0.2	0.5
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause....584-586,588-589	254	6.8	7.8
Infections of kidney....590	28	0.8	0.5
Hyperplasia of prostate....600	3	0.1	0.2
Complications of pregnancy, childbirth, and the puerperium....630-676	4	0.1	0.1
Pregnancy with abortive outcome....630-638	-	-	0.0
Other complications of pregnancy, childbirth, and the puerperium....640-676	4	0.1	0.1
Congenital anomalies....740-759	237	6.4	5.1
Certain conditions originating in the perinatal period....760-779	232	6.2	7.5
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome....767-769	36	1.0	1.8
Other conditions originating in the perinatal period....760-766,770-779	196	5.3	5.7
Symptoms, signs, and ill-defined conditions....780-799	282	7.6	12.0
All other diseases....Residual	2,567	69.0	69.4[3]
Accidents and adverse effects....E800-E949	1,512	40.6	38.2
Motor vehicle accidents....E810-E825	821	22.1	19.7
All other accidents and adverse effects....E800-E807,E826-E949	691	18.6	18.5
Suicide....E950-E959	669	18.0	12.6
Homicide and legal intervention....E960-E978	327	8.8	9.3
All other external causes....E980-E999	23	0.6	1.0

[1] Crude death rates. (Number of deaths per 100,000 population). The U.S. data are provisional.

[2] Beginning with data for 1987, the National Center for Health Statistics introduced category numbers 042*-044* for classifying and coding human immunodeficiency virus (HIV) infection. The asterisk indicates that these codes are not part of the Ninth Revision of the International Classification of Diseases.

[3] Includes mortality from Alzheimer's disease, Parkinson's disease and multiple sclerosis

-: Quantity zero

0.0: Quantity equal or less than 0.05

TABLE 9-10

LEADING[1] CAUSES OF MORTALITY BY COUNTY OF RESIDENCE, ARIZONA, 1980 AND 1989

Cause/Year	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz[2]	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
Diseases of Heart																
1980	7,094	62	192	75	108	45	37	NA	4,052	225	98	1,456	245	32	271	196
1989	8,652	55	264	92	132	63	19	56	4,898	330	120	1,690	308	48	392	185
Malignant Neoplasms																
1980	4,434	42	119	52	52	42	6	NA	2,557	113	56	940	119	36	166	134
1989	6,351	43	172	72	105	34	12	24	3,602	237	93	1,208	237	34	299	179
Unintentional Injuries																
1980	1,523	63	53	50	27	20	12	NA	754	41	58	260	59	8	51	6
1989	1,512	78	33	52	26	15	5	9	764	62	63	234	85	3	47	46
Motor Vehicle-related																
1980	886	43	28	26	18	7	7	NA	438	21	28	112	39	3	30	26
1989	821	52	19	30	16	7	1	8	390	36	32	112	60	3	29	26
Other than Motor Vehicle																
1980	637	20	25	24	9	13	5	NA	316	20	30	88	20	5	21	41
1989	691	26	14	22	10	8	4	1	374	16	31	122	25	0	18	20
Cerebrovascular Disease																
1980	1,415	7	43	22	23	8	1	NA	827	32	14	273	37	7	62	59
1989	1,617	17	47	13	26	13	0	9	917	46	28	309	61	11	73	47
Chronic Obstructive Pulmonary Disease																
1980	1,080	5	30	9	14	6	5	NA	584	19	8	279	40	2	44	35
1989	1,563	6	34	12	19	9	0	5	850	72	7	320	67	12	96	54
Pneumonia & Influenza																
1980	673	12	26	12	19	10	6	NA	319	10	25	161	25	6	22	20
1989	1,079	25	23	15	17	12	1	5	614	28	21	200	40	4	52	22
Suicide																
1980	462	6	16	9	6	3	0	NA	258	20	11	81	20	0	20	12
1989	669	7	17	19	10	4	0	11	358	12	49	131	18	2	43	18
Diabetes																
1980	351	5	10	4	7	1	2	NA	176	9	14	70	22	1	14	16
1989	610	13	20	12	12	9	3	4	313	21	6	114	34	6	22	21
Infectious & Parasitic Diseases[3]																
1980	222	3	4	4	3	1	0	NA	127	2	7	51	7	1	9	3
1989	576	7	6	12	9	3	0	1	361	10	14	98	19	6	19	11
Alcoholism																
1980	325	5	10	6	11	4	3	NA	152	7	22	63	14	2	10	16
1989	334	15	11	12	8	7	1	2	147	7	15	74	14	0	13	8
Homicide																
1980	288	7	11	3	9	2	0	NA	157	2	12	49	17	1	3	15
1989	327	7	4	7	2	0	0	1	185	16	10	64	15	1	11	4
Atherosclerosis																
1980	242	1	11	3	3	1	0	NA	116	4	3	60	11	0	20	9
1989	248	1	5	3	3	3	0	0	113	18	0	77	6	2	8	9
Other Diseases of the Arteries																
1980	234	1	9	6	1	0	0	NA	138	2	0	46	5	2	11	13
1989	333	3	7	6	4	3	0	3	185	13	2	69	9	4	19	6
Perinatal Conditions																
1980	300	10	8	11	5	2	2	NA	192	6	10	36	9	1	3	5
1989	232	6	5	1	2	3	0	0	141	11	9	30	12	3	4	5
Symptoms and Ill-Defined Conditions																
1980	252	28	13	9	7	8	2	NA	98	5	14	34	8	0	5	21
1989	282	14	10	9	4	4	1	1	149	16	14	26	13	2	3	16
Congenital Anomalies																
1980	188	6	8	2	3	2	1	NA	107	4	8	21	8	4	4	10
1989	237	4	6	6	1	3	1	1	134	4	13	36	9	4	7	8
All Other Causes																
1980	2,143	39	68	32	32	16	9	NA	1,155	48	55	431	85	18	86	69
1989	3,216	43	84	43	46	31	6	12	1,764	102	72	644	119	30	146	74
ALL CAUSES																
1980	21,226	302	631	309	330	171	86	NA	11,769	549	415	4,311	731	17	801	700
1989	27,838	344	748	386	426	216	49	144	15,495	995	506	5,324	1,066	.	1,254	713

[1] Leading causes are those causes with the greatest number of deaths statewide for the 1980 to 1989 period.

[2] Included in Yuma county prior to 1983.

[3] Beginning in January 1987, includes data for the category numbers 042-044 (HIV infection), following the redefinition by the National Center for Health Statistics.

TABLE 9-11

RATES[1] FOR THE LEADING CAUSES OF MORTALITY BY COUNTY OF RESIDENCE, ARIZONA, UNITED STATES, 1980 AND 1989

Cause/Year	U.S.[2]	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz[3]	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
Diseases of Heart																	
1980	336.0	261.0	119.0	221.4	100.1	291.3	196.8	324.4	NA	268.7	404.0	144.7	271.1	269.5	156.4	397.7	216.4
1989	296.3	232.4	82.8	252.5	94.1	321.8	251.2	200.6	387.4	227.4	394.9	151.1	237.7	272.3	155.3	388.2	198.3
Malignant Neoplasms																	
1980	183.9	163.1	80.6	137.2	69.4	140.0	183.7	52.6	NA	169.6	202.9	82.7	176.9	130.9	176.0	243.6	148.0
1989	200.3	175.4	64.8	164.5	73.6	255.9	135.6	126.7	166.0	167.4	283.6	117.1	169.9	209.6	110.0	296.1	191.8
Unintentional Injuries																	
1980	46.7	56.0	121.0	61.1	66.7	72.8	87.5	105.2	NA	50.0	73.6	85.7	48.9	64.9	39.1	74.8	74.0
1989	38.2	40.6	117.5	31.6	53.2	63.4	59.8	52.8	62.3	35.5	74.2	79.3	32.9	75.2	9.7	46.5	49.3
Motor Vehicle-related																	
1980	23.5	32.6	82.6	32.3	34.7	48.5	30.6	61.4	NA	29.0	37.7	41.4	32.4	42.9	14.7	44.0	28.7
1989	19.7	22.0	78.3	18.2	30.7	39.0	27.9	10.6	55.3	18.1	43.1	40.2	15.7	53.1	9.7	28.7	27.9
Other than Motor Vehicle																	
1980	23.2	23.4	38.4	28.8	32.0	24.3	56.9	43.8	NA	21.0	35.9	44.3	16.6	22.0	24.4	30.8	45.3
1989	18.5	18.6	39.2	13.4	22.5	24.4	31.9	42.2	6.9	17.4	19.1	39.0	17.2	22.1	-	17.8	21.4
Cerebrovascular Disease																	
1980	75.1	52.1	13.4	49.6	29.4	62.0	35.0	8.8	NA	54.8	57.5	20.7	51.4	40.7	34.2	91.0	65.2
1989	59.4	43.4	25.6	44.9	13.3	63.4	51.8	-	62.3	42.6	55.1	35.2	43.5	53.9	35.5	72.3	50.4
Chronic Obstructive Pulmonary Disease																	
1980	24.7	39.7	9.6	34.6	12.0	37.8	26.2	43.8	NA	38.7	34.1	11.8	52.5	44.0	9.8	64.6	38.7
1989	34.0	42.0	9.0	32.5	12.3	46.3	35.9	-	34.6	39.5	86.2	8.8	45.0	59.2	38.8	95.1	57.9
Pneumonia & Influenza																	
1980	24.1	24.8	23.0	30.0	16.0	51.2	43.7	52.6	NA	21.2	18.0	36.9	30.3	27.5	29.3	32.3	22.1
1989	30.3	29.0	37.7	22.0	15.3	41.4	47.8	10.6	34.6	28.5	33.5	26.4	28.1	35.4	12.9	51.5	23.6
Suicide																	
1980	11.9	17.0	11.5	18.5	12.0	16.2	13.1	-	NA	17.1	35.9	16.2	15.2	22.0	-	29.3	13.3
1989	12.6	18.0	10.5	16.3	19.4	24.4	15.9	-	76.1	16.6	14.4	61.7	18.4	15.9	6.5	42.6	19.3
Diabetes																	
1980	15.4	12.9	9.6	11.5	5.3	18.9	4.4	17.5	NA	11.7	16.2	20.7	13.2	24.2	4.9	20.5	17.7
1989	18.8	16.4	19.6	19.1	12.3	29.3	35.9	31.7	27.7	14.5	25.1	7.6	16.0	30.1	19.4	21.8	22.5
Infectious & Parasitic Diseases																	
1980	8.7	8.2	5.8	4.7	5.3	8.1	4.4	8.4	NA	8.4	3.6	10.4	9.6	7.7	4.9	13.2	3.9
1989	21.7	15.5	10.5	5.7	12.3	21.9	12.0	-	6.9	16.8	12.0	17.6	13.8	16.8	19.4	18.8	11.8
Alcoholism																	
1980	NA	12.0	9.6	11.5	8.0	29.7	17.5	26.3	NA	10.1	12.6	32.5	11.9	15.4	9.8	14.7	17.7
1989	NA	9.0	22.6	10.5	12.3	19.5	27.9	10.6	13.8	6.8	8.4	18.9	10.4	12.4	-	12.9	8.6
Homicide																	
1980	10.7	10.6	13.4	12.7	4.0	24.3	8.7	-	NA	10.4	3.6	17.7	9.2	18.7	4.9	4.4	16.6
1989	9.3	8.8	10.5	3.8	7.2	4.9	-	-	6.9	8.6	19.1	12.6	9.0	13.3	3.2	10.9	4.3
Atherosclerosis																	
1980	13.0	8.9	1.9	12.7	4.0	2.7	4.4	-	NA	7.7	7.2	4.4	11.2	12.1	-	29.3	9.9
1989	7.7	6.7	1.5	4.8	3.1	7.3	12.0	-	-	5.3	21.5	-	10.8	5.3	6.5	7.9	9.6
Other Diseases of the Arteries																	
1980	8.8	8.6	1.9	10.4	8.0	2.7	-	-	NA	9.2	3.6	-	8.7	5.5	9.8	16.1	14.4
1989	9.6	8.9	4.5	6.7	6.1	9.8	12.0	-	20.8	8.6	15.6	2.5	9.7	8.0	12.9	18.8	6.4
Perinatal Conditions																	
1980	10.1	11.0	19.2	9.2	14.7	13.5	8.7	17.5	NA	12.7	10.8	14.8	6.7	9.9	4.9	4.4	5.5
1989	7.5	6.2	9.0	4.8	1.0	4.9	12.0	-	-	6.6	13.2	11.3	4.2	10.6	9.7	4.0	5.4
Symptoms and Ill-Defined Conditions																	
1980	12.7	9.3	53.8	15.0	12.0	18.8	35.0	17.5	NA	6.5	9.0	20.7	6.4	8.8	-	7.3	23.2
1989	12.0	7.6	21.1	9.6	9.2	9.8	15.9	10.6	6.9	6.9	19.1	17.6	3.7	11.5	6.5	3.0	17.1
Congenital Anomalies																	
1980	6.2	6.9	11.5	9.2	2.7	8.1	8.7	8.8	NA	7.1	7.2	11.8	4.0	8.8	19.6	5.9	11.0
1989	5.1	6.4	6.0	5.7	6.1	2.4	12.0	10.6	6.9	6.2	4.8	16.4	5.1	8.0	12.9	6.9	8.6
All Other Causes																	
1980	90.3	78.9	75.0	78.4	42.7	91.9	70.2	70.6	NA	76.5	86.0	81.2	84.3	93.4	87.8	126.3	75.4
1989	105.3	86.4	64.8	80.3	44.0	112.1	123.6	63.4	83.0	82.0	122.1	90.6	90.6	105.2	97.1	144.6	79.3
ALL CAUSES																	
1980	878.3	781.0	579.8	727.7	412.3	890.0	748.0	754.0	NA	780.4	985.8	612.9	811.5	804.0	591.4	1,175.4	773.0
1989	868.1	747.7	518.2	715.3	395.0	1,038.4	861.2	517.4	996.1	720.0	1,190.8	636.9	748.8	942.6	556.5	1,241.8	764.1

1 Crude death rates. (Number of deaths per 100,000 population).
2 Provisional.
3 Included in Yuma County prior to 1983.

TABLE 9-12

PERCENT OF TOTAL DEATHS FOR THE LEADING CAUSES OF MORTALITY BY COUNTY OF RESIDENCE, ARIZONA, UNITED STATES, 1980 AND 1989

Cause/Year	U.S.[1]	Arizona	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz[2]	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
Diseases of Heart																	
1980	38.3	33.4	20.5	30.4	24.3	32.7	26.3	43.0	NA	34.4	41.0	23.6	33.8	33.5	26.4	33.8	28.0
1989	34.1	31.1	16.0	35.3	29.8	31.0	29.2	38.8	38.9	31.6	33.2	23.7	31.7	28.9	27.9	31.3	25.9
Malignant Neoplasms																	
1980	20.9	20.9	13.9	18.9	16.8	15.8	24.6	7.0	NA	21.7	20.6	13.5	21.8	16.3	29.8	20.7	19.1
1989	23.1	22.8	12.5	23.0	23.3	24.6	15.7	24.5	16.7	23.2	23.8	18.4	22.7	22.2	19.8	23.8	25.1
Unintentional Injuries																	
1980	5.3	7.2	20.9	8.4	16.2	8.2	11.7	14.0	NA	6.4	7.5	14.0	6.0	8.1	6.6	6.4	9.6
1989	4.4	5.4	22.7	4.4	16.8	6.1	6.9	10.2	6.3	4.9	6.2	12.5	4.4	8.0	1.7	3.7	6.5
Motor Vehicle-related																	
1980	2.7	4.2	14.2	4.4	8.4	5.5	4.1	8.1	NA	3.7	3.8	6.7	4.0	5.3	2.5	3.7	3.7
1989	2.3	2.9	15.1	2.5	9.7	3.8	3.2	2.0	5.6	2.5	3.6	6.3	2.1	5.6	1.7	2.3	3.6
Other than Motor Vehicle																	
1980	2.6	3.0	6.6	4.0	7.8	2.7	7.6	5.8	NA	2.7	3.6	7.2	2.0	2.7	4.1	2.6	5.9
1989	2.1	2.5	7.6	1.9	7.1	2.3	3.7	8.2	0.7	2.4	1.6	6.1	2.3	2.3	0.0	1.4	2.8
Cerebrovascular Disease																	
1980	6.6	6.7	2.3	6.8	7.1	7.0	4.7	1.2	NA	7.0	5.8	3.4	6.3	5.1	5.8	7.7	8.4
1989	6.8	5.8	4.9	6.3	4.2	6.1	6.0	0.0	6.3	5.9	4.6	5.5	5.8	5.7	6.4	5.8	6.6
Chronic Obstructive Pulmonary Disease																	
1980	2.8	5.1	1.7	4.8	2.9	4.2	3.5	5.8	NA	5.0	3.5	1.9	6.5	5.5	1.7	5.5	5.0
1989	3.9	5.6	1.7	4.5	3.9	4.5	4.2	0.0	3.5	5.5	7.2	1.4	6.0	6.3	7.0	7.7	7.6
Pneumonia & Influenza																	
1980	2.7	3.2	4.0	4.1	3.9	5.8	5.8	7.0	NA	2.7	1.8	6.0	3.7	3.4	5.0	2.7	2.9
1989	3.5	3.9	7.3	3.1	4.9	4.0	5.6	2.0	3.5	4.0	2.8	4.2	3.8	3.8	2.3	4.1	3.1
Suicide																	
1980	1.4	2.2	2.0	2.5	2.9	1.8	1.8	0.0	NA	2.2	3.6	2.7	1.9	2.7	0.0	2.5	1.7
1989	1.5	2.4	2.0	2.3	6.1	2.3	1.9	0.0	7.6	2.3	1.2	3.8	2.5	1.7	1.2	3.4	2.5
Diabetes																	
1980	1.8	1.7	1.7	1.6	1.3	2.1	0.6	2.3	NA	1.5	1.6	3.4	1.6	3.0	0.8	1.7	2.3
1989	2.2	2.2	3.8	2.7	3.9	2.8	4.2	6.1	2.8	2.0	2.1	1.2	2.1	3.2	3.5	1.8	2.9
Infectious & Parasitic Diseases																	
1980	1.0	1.0	1.0	0.6	1.3	0.9	0.6	0.0	NA	1.1	0.4	1.7	1.2	1.0	0.8	1.1	0.4
1989	2.5	2.1	2.0	0.8	3.9	2.1	1.4	0.0	0.7	2.1	1.0	2.8	1.8	1.8	3.5	1.5	1.5
Alcoholism																	
1980	NA	1.5	1.7	1.6	1.9	3.3	2.3	3.5	NA	1.3	1.3	5.3	1.5	1.9	1.7	1.2	2.3
1989	NA	2.1	4.4	1.5	3.9	1.9	3.2	2.0	1.4	0.9	0.7	3.0	1.4	1.3	0.0	1.0	1.1
Homicide																	
1980	1.2	1.4	2.3	1.7	1.0	2.7	1.2	0.0	NA	1.3	0.4	2.9	1.1	2.3	0.8	0.4	2.1
1989	1.1	1.2	2.0	0.5	2.3	0.5	0.0	0.0	0.7	1.2	1.6	2.0	1.2	1.4	0.6	0.9	0.6
Atherosclerosis																	
1980	1.5	1.1	0.3	1.7	1.0	0.9	0.6	0.0	NA	1.0	0.7	0.7	1.4	1.5	0.0	2.5	1.3
1989	0.9	0.9	0.3	0.7	1.0	0.7	1.4	0.0	0.0	0.7	1.8	0.0	1.4	0.6	1.2	0.6	1.3
Other Diseases of the Arteries																	
1980	1.0	1.1	0.3	1.4	1.9	0.3	0.0	0.0	NA	1.2	0.4	0.0	1.1	0.7	1.7	1.4	1.9
1989	1.1	1.2	0.9	0.9	1.9	0.9	1.4	0.0	2.1	1.2	1.3	0.4	1.3	0.8	2.3	1.5	0.8
Perinatal Conditions																	
1980	1.1	1.4	3.3	1.3	3.6	1.5	1.2	2.3	NA	1.6	1.1	2.4	0.8	1.2	0.8	0.4	0.7
1989	0.9	0.8	1.7	0.7	0.3	0.5	1.4	0.0	0.0	0.9	1.1	1.8	0.6	1.1	1.7	0.3	0.7
Symptoms and Ill-Defined Conditions																	
1980	1.4	1.2	9.3	2.1	2.9	2.1	4.7	2.3	NA	0.8	0.9	3.4	0.8	1.1	0.0	0.6	3.0
1989	1.4	1.0	4.1	1.3	2.9	0.9	1.9	2.0	0.7	1.0	1.6	2.8	0.5	1.2	1.2	0.2	2.2
Congenital Anomalies																	
1980	0.7	0.9	2.0	1.3	0.6	0.9	1.2	1.2	NA	0.9	0.7	1.9	0.5	1.1	3.3	0.5	1.4
1989	0.6	0.9	1.2	0.8	1.9	0.2	1.4	2.0	0.7	0.9	0.4	2.6	0.7	0.8	2.3	0.6	1.1
All Other Causes																	
1980	10.3	10.1	12.9	10.8	10.4	9.7	9.4	10.5	NA	9.8	8.7	13.3	10.0	11.6	14.9	10.7	9.9
1989	12.1	11.6	12.5	11.2	13.9	10.8	14.4	12.2	8.3	11.4	10.3	14.2	12.1	11.2	17.4	11.6	10.4
ALL CAUSES																	
1980	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1989	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1 Provisional.
2 Included in Yuma County prior to 1983.

TABLE 9-13

FIVE LEADING CAUSES OF DEATH[1] AMONG CHILDREN (1 - 14 YEARS) BY ETHNICITY, ARIZONA, SELECTED YEARS, 1970 - 1989

ETHNICITY	LEADING CAUSES OF DEATH	Proportional mortality (%) 1970	1975	1980	1985	1989
WHITE[2]	Unintentional injuries	54.3	50.2	54.7	40.6	50.0
	Motor vehicle-related	16.8	28.2	25.0	17.1	20.4
	Drowning	10.1	11.3	10.1	10.7	17.9
	Other	27.4	10.7	19.6	12.8	11.7
	Malignant neoplasms	11.5	16.9	9.5	10.2	10.5
	Congenital anomalies	5.8	7.3	5.4	5.3	7.4
	Diseases of heart	1.9	4.0	1.8	-	1.9
	Suicide	0.5	-	1.8	0.5	1.2
	(Number of all deaths)	(208)	(177)	(168)	(187)	(162)
HISPANIC	Unintentional injuries	58.7	47.7	60.7	49.1	42.6
	Motor vehicle-related	32.0	16.4	26.8	24.5	23.5
	Drowning	10.7	16.4	23.2	15.1	8.8
	Other	16.0	14.9	10.7	9.5	10.3
	Malignant neoplasms	6.7	9.0	3.6	9.4	11.8
	Congenital anomalies	4.0	9.0	5.4	9.4	11.8
	Homicide	-	9.0	12.5	5.7	8.8
	Infectious disease	12.0	6.0	1.8	1.9	-
	(Number of all deaths)	(75)	(67)	(56)	(53)	(68)
BLACK	Unintentional injuries	46.2	42.8	44.4	35.0	43.5
	Motor vehicle-related	-	9.5	33.3	20.0	21.7
	Drowning	23.1	19.0	11.1	-	8.7
	Other	23.1	14.3	-	15.0	13.1
	Congenital anomalies	23.1	4.8	11.1	-	8.7
	Homicide	7.7	5.2	-	20.0	4.3
	Pneumonia and Influenza	7.7	4.8	-	-	4.3
	(Number of all deaths)	(13)	(21)	(9)	(20)	(23)
NATIVE AMERICAN	Unintentional injuries	60.0	53.9	45.7	62.5	59.5
	Motor vehicle-related	26.7	32.3	28.6	35.0	42.9
	Drowning	8.3	8.6	-	7.5	4.8
	Other	25.0	12.5	17.1	20.0	11.8
	Diseases of heart	-	-	8.6	7.5	4.8
	Pneumonia and influenza	8.3	8.6	-	-	4.8
	Infectious and Parasitic Diseases	10.0	8.6	2.9	2.5	4.8
	Malignant neoplasms	1.7	3.4	8.6	-	2.4
	(Number of all deaths)	(60)	(58)	(35)	(40)	(42)
TOTAL: ALL ETHNIC GROUPS[3]	Unintentional injuries	55.8	50.0	54.6	49.2	49.2
	Motor vehicle-related	21.0	25.3	26.7	23.0	24.2
	Drowning	10.4	12.7	11.4	11.7	13.1
	Other	24.4	12.0	16.5	14.5	11.9
	Malignant neoplasms	8.7	12.0	8.1	8.7	8.8
	Congenital anomalies	5.6	6.2	5.5	6.9	7.7
	Homicide	1.7	4.3	5.1	6.1	5.7
	Diseases of heart	1.7	2.5	2.2	1.0	3.0
	(Number of all deaths)	(357)	(324)	(273)	(275)	(297)

1 Leading causes are based on 1989 vital records
2 Includes only whites of non-Hispanic origin
3 Includes other ethnic groups
- Quantity zero (no recorded deaths).

TABLE 9-14

FIVE LEADING CAUSES OF DEATH[1] AMONG ADOLESCENTS (15 - 19 YEARS) BY ETHNICITY, ARIZONA, SELECTED YEARS, 1970 - 1989

ETHNICITY	LEADING CAUSES OF DEATH	Proportional mortality (%) 1970	1975	1980	1985	1989
WHITE[2]	Unintentional injuries	61.2	59.9	58.4	48.9	53.4
	Motor vehicle-related	39.4	42.7	41.6	44.9	40.4
	Other than motor vehicle	21.8	17.2	16.8	11.4	13.0
	Suicide	9.2	15.9	12.9	18.4	20.5
	Homicide	8.5	3.2	4.5	3.8	7.5
	Malignant neoplasms	4.2	4.5	7.3	8.2	4.1
	Congenital anomalies	2.1	1.3	1.7	2.5	0.7
	(Number of all deaths)	(142)	(157)	(178)	(158)	(146)
HISPANIC	Unintentional injuries	55.3	52.4	51.8	61.7	54.7
	Motor vehicle-related	31.9	34.4	37.0	55.3	41.5
	Other than motor vehicle	23.4	18.0	14.8	6.4	13.2
	Suicide	-	6.6	9.3	12.8	15.1
	Homicide	4.3	4.5	20.4	8.5	13.2
	Malignant neoplasms	4.3	1.6	7.4	4.3	5.7
	Congenital anomalies	4.3	1.6	1.9	-	1.9
	(Number of all deaths)	(47)	(61)	(54)	(47)	(53)
NATIVE AMERICAN	Unintentional injuries	68.2	64.0	56.4	55.5	58.5
	Motor vehicle-related	45.5	44.0	41.0	51.1	41.5
	Other than motor vehicle	22.7	20.0	15.4	4.4	17.1
	Suicide	6.8	8.0	12.8	8.9	17.1
	Homicide	9.1	10.0	12.8	15.6	7.3
	Malignant neoplasms	2.3	-	-	4.4	-
	(Number of all deaths)	(44)	(50)	(39)	(45)	(41)
TOTAL: ALL ETHNIC GROUPS[3]	Unintentional injuries	61.6	58.0	56.8	55.6	52.5
	Motor vehicle-related	39.7	40.4	40.5	47.1	38.3
	Other than motor vehicle	21.9	17.6	16.3	8.5	14.2
	Suicide	6.8	12.5	11.8	15.7	18.4
	Homicide	5.5	8.8	11.8	7.2	10.3
	Malignant neoplasms	6.3	2.2	4.8	6.5	3.8
	Congenital anomalies	2.1	1.1	1.4	1.5	0.8
	(Number of all deaths)	(237)	(272)	(289)	(262)	(261)

1 Leading causes are based on 1989 vital records.

2 Includes only whites of non-Hispanic origin.

3 Includes other ethnic groups. Specific causes of nineteen deaths to Black adolescents in Arizona in 1989 are not shown separately.

- Quanitity zero (no recorded deaths).

TABLE 9-15

FIVE LEADING CAUSES OF DEATH[1] AMONG YOUNG ADULTS (20 - 44 YEARS) BY ETHNICITY, ARIZONA, SELECTED YEARS, 1970 - 1989

ETHNICITY	LEADING CAUSES OF DEATH	Proportional mortality (%) 1970	1975	1980	1985	1989
WHITE[2]	Unintentional injuries	32.2	30.1	34.4	32.9	24.6
	Motor vehicle-related	19.2	17.7	24.4	22.8	14.6
	Other than motor vehicle	13.0	12.4	10.0	10.1	10.0
	Suicide	9.5	14.2	14.3	15.9	17.6
	Malignant neoplasms	15.6	14.8	14.0	13.6	12.5
	Diseases of heart	9.7	11.5	8.7	9.2	9.8
	HIV infection	-	-	NA	NA	8.3
	(Number of all deaths)	(877)	(1005)	(1204)	(1320)	(1495)
HISPANIC	Unintentional injuries	37.7	33.9	38.6	30.7	36.8
	Motor vehicle-related	27.2	22.7	29.7	22.8	21.3
	Other than motor vehicle	10.5	11.2	8.9	7.9	15.5
	Homicide	9.2	10.0	15.7	15.7	12.6
	Suicide	5.3	11.2	12.3	11.2	9.7
	Malignant neoplasms	11.0	8.8	7.6	10.9	8.7
	HIV infection	-	-	NA	NA	6.3
	(Number of all deaths)	(228)	(260)	(236)	(267)	(380)
BLACK	Homicide	30.9	33.7	18.5	17.5	19.6
	Unintentional injuries	16.3	17.4	16.9	19.0	15.2
	Motor vehicle-related	7.4	5.8	9.2	11.1	8.1
	Other than motor vehicle	8.9	11.4	7.7	7.9	7.1
	Diseases of heart	12.3	8.1	9.2	12.7	10.7
	Suicide	1.2	2.3	7.7	9.5	8.0
	Malignant neoplasms	7.4	5.8	15.4	4.8	7.1
	(Number of all deaths)	(81)	(86)	(65)	(63)	(112)
NATIVE AMERICAN	Unintentional injuries	46.2	41.0	39.2	42.5	40.0
	Motor vehicle-related	31.3	28.9	27.7	30.4	27.4
	Other than motor vehicle	14.9	12.1	11.5	12.1	12.6
	Alcoholism	12.5	12.9	17.4	10.5	12.6
	Homicide	5.3	5.9	7.9	9.7	11.9
	Suicide	4.8	8.2	8.3	10.1	7.0
	Malignant neoplasms	3.8	5.8	2.8	2.4	4.8
	(Number of all deaths)	(208)	(256)	(253)	(247)	(270)
TOTAL: ALL ETHNIC GROUPS[3]	Unintentional injuries	34.1	31.8	34.9	33.4	27.9
	Motor vehicle-related	21.5	19.7	24.9	23.4	16.9
	Other than motor vehicle	12.6	12.1	10.0	10.0	11.0
	Suicide	7.7	12.1	13.0	14.3	14.5
	Malignant neoplasms	12.7	12.1	11.5	11.6	10.8
	Homicide	7.2	8.2	9.2	8.1	8.7
	Diseases of heart	8.2	9.6	7.7	8.5	8.3
	(Number of all deaths)	(1398)	(1614)	(1768)	(1908)	(2269)

1 Leading causes are based on 1989 vital records.
2 Includes only whites of non-Hispanic origin.
3 Includes other ethnic groups.
- Quantity zero (no recorded deaths).

TABLE 9-16

FIVE LEADING CAUSES OF DEATH[1] AMONG MIDDLE AGED ADULTS (45-64 YEARS) BY ETHNICITY, ARIZONA, SELECTED YEARS, 1970 - 1989

ETHNICITY	LEADING CAUSES OF DEATH	Proportional mortality (%) 1970	1975	1980	1985	1989
WHITE[2]	Malignant neoplasms	23.7	29.7	33.0	35.7	36.4
	Diseases of heart	32.5	32.9	31.9	29.4	27.4
	Chronic obstructive pulmonary disease	5.0	3.6	6.1	5.5	5.9
	Unintentional injuries	6.5	4.1	4.2	4.6	3.6
	Motor vehicle-related	3.4	1.8	2.3	2.9	2.1
	Other than motor vehicle	3.1	2.3	1.9	1.7	1.5
	Suicide	2.5	3.1	3.6	3.4	3.1
	(Number of all deaths)	(3016)	(3311)	(3873)	(3923)	(3919)
HISPANIC	Malignant neoplasms	17.2	23.6	25.6	25.5	26.6
	Diseases of heart	29.6	29.4	24.4	28.9	25.5
	Unintentional injuries	7.8	7.0	9.7	7.2	7.7
	Motor vehicle-related	4.6	3.9	5.5	4.6	4.6
	Other than motor vehicle	3.2	3.1	4.2	2.6	3.0
	Diabetes	4.9	3.3	2.3	4.1	7.1
	Alcoholism	8.0	9.6	6.9	5.4	6.0
	(Number of all deaths)	(412)	(513)	(434)	(462)	(482)
BLACK	Diseases of heart	23.4	32.6	32.9	31.6	32.7
	Malignant neoplasms	17.7	23.6	24.0	31.0	24.2
	Unintentional injuries	3.2	4.2	4.8	3.2	7.3
	Motor vehicle-related	0.7	2.1	1.4	1.3	3.6
	Other than motor vehicle	2.5	2.1	3.4	1.9	3.7
	Pneumonia and influenza	5.7	2.1	3.4	0.6	6.1
	Chronic obstructive pulmonary disease	4.4	1.4	2.1	3.9	2.4
	(Number of all deaths)	(158)	(144)	(146)	(155)	(165)
NATIVE AMERICAN	Unintentional injuries	17.8	19.1	16.9	13.2	18.6
	Motor vehicle-related	8.9	9.3	8.7	6.4	9.8
	Other than motor vehicle	8.9	9.8	8.2	6.8	8.7
	Diseases of heart	14.1	12.4	16.4	14.6	14.4
	Malignant neoplasms	8.3	9.8	10.1	15.5	12.5
	Alcoholism	13.0	13.5	13.6	10.5	11.7
	Diabetes	3.6	3.6	6.8	12.3	7.6
	(Number of all deaths)	(192)	(193)	(207)	(220)	(264)
TOTAL: ALL ETHNIC GROUPS[3]	Malignant neoplasms	30.9	31.6	30.5	33.7	33.7
	Diseases of heart	22.0	27.8	31.0	28.7	26.7
	Chronic obstructive pulmonary disease	4.5	3.2	5.3	4.8	5.0
	Unintentional injuries	7.1	5.2	5.4	4.3	5.0
	Motor vehicle-related	3.7	2.5	2.9	2.4	2.8
	Other than motor vehicle	3.4	2.7	2.5	1.9	2.2
	Suicide	2.4	2.6	2.4	2.6	2.8
	(Number of all deaths)	(3836)	(4171)	(4672)	(4778)	(4861)

1 Leading causes are based on 1989 vital records.
2 Includes only whites of non-Hispanic origin.
3 Includes other ethnic groups.

TABLE 9-17

FIVE LEADING CAUSES OF DEATH[1] AMONG ELDERLY (65 YEARS AND OLDER) BY ETHNICITY, ARIZONA, SELECTED YEARS, 1970 - 1989

ETHNICITY	LEADING CAUSES OF DEATH	Proportional mortality (%) 1970	1975	1980	1985	1989
WHITE[2]	Diseases of heart	41.5	41.8	41.2	38.8	37.0
	Malignant neoplasms	16.3	18.7	20.7	22.3	22.9
	Cerebrovascular disease	13.1	12.2	8.9	7.8	7.3
	Chronic obstructive pulmonary disease	4.7	3.2	6.4	6.7	7.1
	Pneumonia and influenza	3.5	3.3	3.7	4.0	4.7
	(Number of all deaths)	(7180)	(8507)	(12027)	(15063)	(17442
HISPANIC	Diseases of heart	38.1	38.5	37.9	37.3	33.7
	Malignant neoplasms	15.4	18.2	18.6	22.2	21.8
	Cerebrovascular disease	11.7	12.3	8.6	7.0	7.8
	Diabetes	3.7	2.6	3.7	5.5	5.7
	Pneumonia and influenza	3.7	2.6	3.7	4.4	4.3
	(Number of all deaths)	(712)	(940)	(881)	(939)	(1186)
BLACK	Diseases of heart	37.6	37.7	37.7	34.9	39.9
	Malignant neoplasms	17.8	18.2	17.6	27.7	21.5
	Cerebrovascular disease	10.4	12.7	8.8	8.6	9.3
	Diabetes	5.4	2.5	5.1	3.6	4.7
	Pneumonia and influenza	5.9	3.8	3.3	2.9	3.1
	(Number of all deaths)	(202)	(236)	(273)	(278)	(386)
NATIVE AMERICAN	Diseases of heart	21.3	14.2	25.9	25.7	26.0
	Malignant neoplasms	6.3	11.4	10.2	11.3	16.7
	Diabetes	1.7	5.0	8.1	7.1	9.3
	Pneumonia and influenza	13.0	11.4	10.5	8.1	8.8
	Unintentional injuries	5.9	4.6	3.8	4.6	5.7
	Motor vehicle-related	4.2	2.8	3.0	1.3	1.3
	Other than motor vehicle	1.7	1.8	0.8	3.3	4.4
	(Number of all deaths)	(239)	(281)	(371)	(397)	(454)
TOTAL: ALL ETHNIC GROUPS[3]	Diseases of heart	40.6	40.6	40.6	38.3	36.6
	Malignant neoplasms	16.0	18.5	20.2	22.1	22.7
	Cerebrovascular disease	12.8	12.1	8.7	7.8	7.3
	Chronic obstructive pulmonary disease	4.5	2.9	6.0	6.3	6.7
	Pneumonia and influenza	3.9	3.7	3.9	4.1	4.7
	(Number of all deaths)	(8439)	(9984)	(13580)	(16723)	(19581

1 Leading causes are based on 1989 vital records.
2 Includes only whites of non-Hispanic origin.
3 Includes other ethnic groups.

TABLE 9-18

FIVE LEADING CAUSES OF DEATH[1] BY ETHNICITY, (ALL AGES), ARIZONA, SELECTED YEARS, 1970 - 1989

ETHNICITY	LEADING CAUSES OF DEATH	Proportional mortality (%) 1970	1975	1980	1985	1989
WHITE[2]	Diseases of heart	34.3	35.4	35.4	33.9	32.7
	Malignant neoplasms	17.6	20.6	22.3	23.7	24.0
	Chronic obstructive pulmonary disease	4.4	3.0	5.7	6.0	6.3
	Cerebrovascular disease	9.3	9.0	7.1	6.3	6.0
	Unintentional injuries	7.3	5.9	5.8	4.8	4.1
	(Number of all deaths)	(11554)	(13234)	(17833)	(20893)	(23502)
HISPANIC	Diseases of heart	25.5	26.8	25.4	27.4	23.6
	Malignant neoplasms	13.2	16.1	16.7	19.1	18.6
	Unintentional injuries	13.2	10.7	12.4	10.1	11.1
	Cerebrovascular disease	7.8	7.7	5.6	4.7	4.8
	Diabetes	3.1	2.2	2.4	3.8	4.8
	(Number of all deaths)	(1623)	(2001)	(1798)	(2002)	(2331)
BLACK	Diseases of heart	24.8	27.6	28.5	27.9	29.5
	Malignant neoplasms	14.1	15.7	17.1	22.9	17.4
	Unintentional injuries	6.8	7.0	6.5	6.8	6.2
	Cerebrovascular disease	8.3	8.3	6.0	5.2	6.2
	Homicide	7.3	7.6	5.4	3.6	4.6
	(Number of all deaths)	(495)	(529)	(551)	(559)	(760)
NATIVE AMERICAN	Unintentional injuries	27.0	24.8	20.7	20.1	21.1
	Diseases of Heart	10.2	8.3	14.8	15.1	15.0
	Malignant Neoplasms	4.9	7.4	7.2	8.5	10.8
	Alcoholism	6.3	6.9	8.1	5.3	6.4
	Diabetes	1.6	2.7	4.8	5.7	5.6
	(Number of all deaths)	(859)	(931)	(988)	(1021)	(1140)
TOTAL: ALL ETHNIC GROUPS[3]	Diseases of heart	31.7	32.7	33.4	32.4	31.1
	Malignant neoplasms	16.2	19.2	20.9	22.7	22.8
	Cerebrovascular disease	8.9	8.6	6.7	6.1	5.8
	Chronic obstructive pulmonary disease	3.8	2.6	5.1	5.3	5.6
	Unintentional injuries	9.1	7.4	7.2	5.9	5.4
	(Number of all deaths)	(14857)	(16964)	(21226)	(24577)	(27838)

1 Leading causes are based on 1989 vital records.
2 Includes only whites of non-Hispanic origin.
3 Includes other ethnic groups.